

Rider's Manual

R 1200 GS Adventure



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.

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General instructions

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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

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.

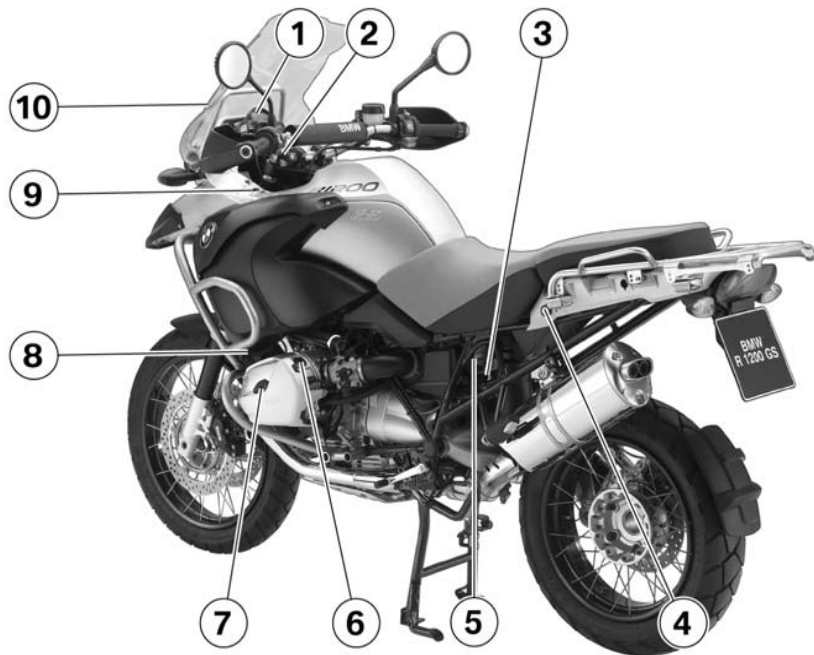
Currency

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.

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General view, left side

- 1** Clutch-fluid reservoir
(➡ 102)
- 2** Adjuster for headlight
beam throw underneath
the instrument cluster
(➡ 52)
- 3** Adjuster, damping, rear
(➡ 59)
- 4** Seat lock (➡ 54)
- 5** Power socket (➡ 80)
- 6** Filler neck, engine oil
(➡ 96)
- 7** Oil sight glass (➡ 95)
- 8** Adjuster, spring preload,
front (➡ 58)
- 9** Socket (OA) (➡ 80)
- 10** Adjustable windscreen
(➡ 57)

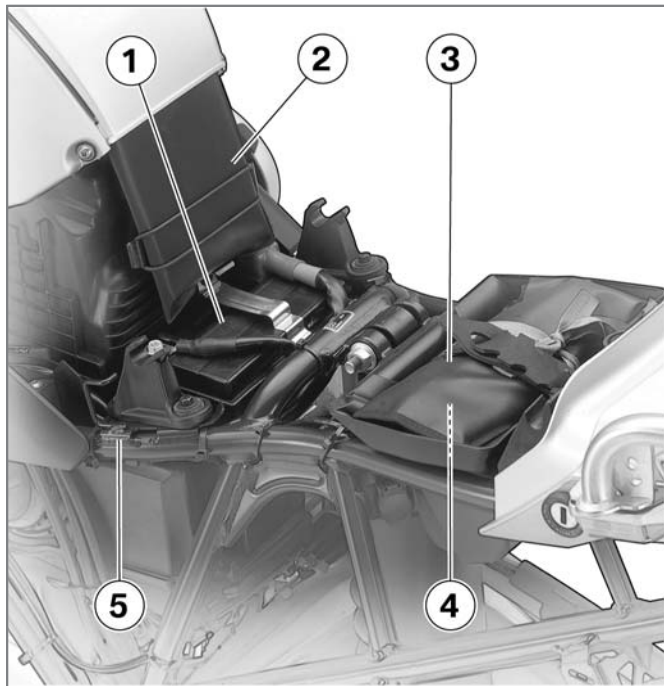


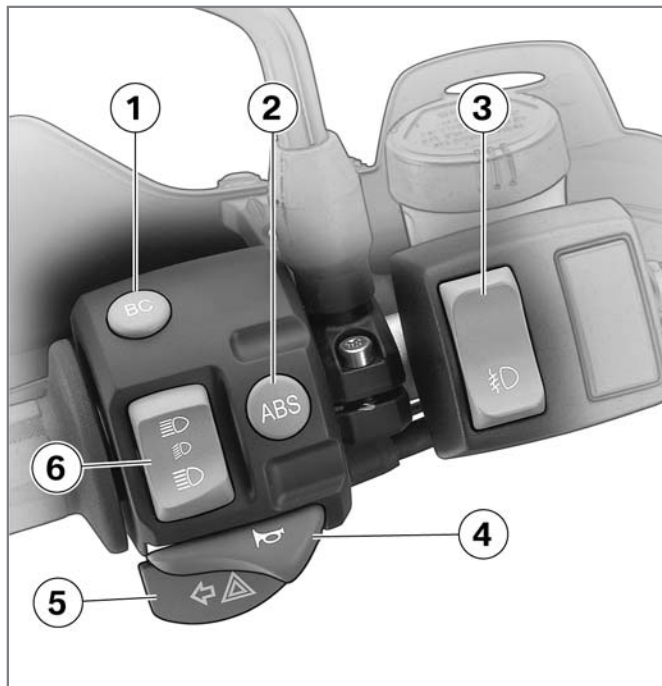
General view, right side

- 1 Filler neck, fuel (➡ 71)
- 2 Vehicle Identification Number (VIN) on steering-head bearing
- 3 Brake-fluid reservoir, front (➡ 99)
- 4 Air filter (underneath tank cover) (➡ 120)
- 5 Adjustable footbrake lever (➡ 48)
- 6 Adjuster, spring preload, rear (➡ 57)
- 7 Brake-fluid reservoir, rear (➡ 100)

Underneath the seat

- 1 Battery (➡ 127)
- 2 Rider's Manual
- 3 Toolkit (➡ 93)
- 4 Puncture repair kit (OA) underneath toolkit
- 5 Helmet holder (➡ 56)



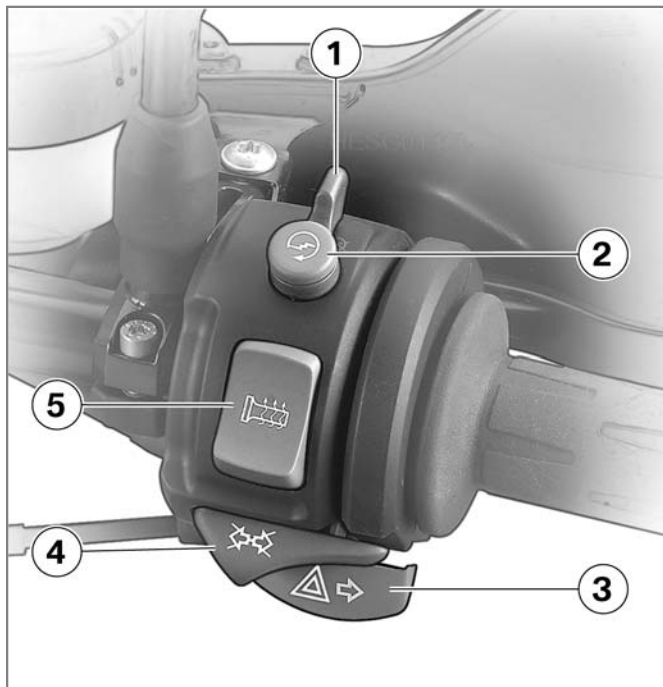


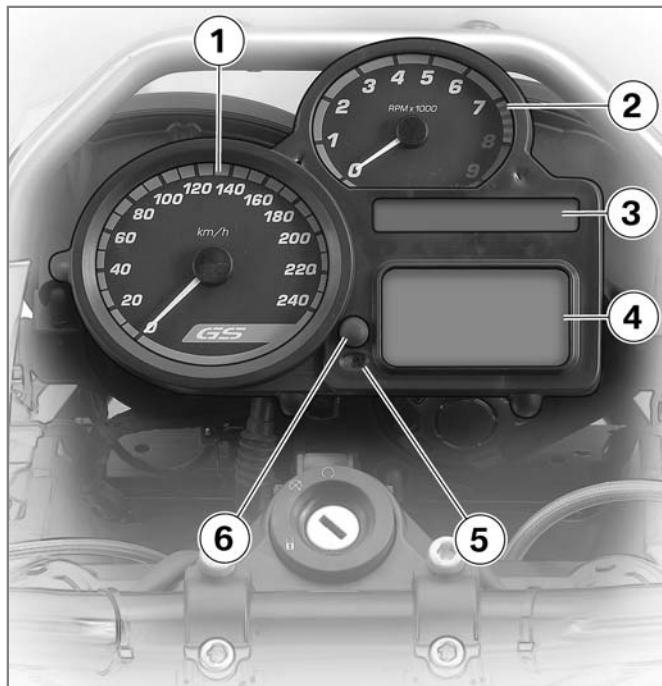
Handlebar fitting, left

- 1** Pushbutton, Tripmaster or on-board computer (OE) (➡ 39)
- 2** Pushbutton, ABS (OE) (➡ 78)
- 3** Switch for auxiliary head-lights (OE) (➡ 51)
- 4** Pushbutton, horn
- 5** Pushbutton, left flashing turn indicators and hazard warning flashers (➡ 53) (➡ 38)
- 6** Switch, high-beam headlight and headlight flasher (➡ 50)

Handlebar fitting, right

- 1 Emergency off switch (kill switch) (➡ 46)
- 2 Pushbutton, starter (➡ 64)
- 3 Pushbutton, right flashing turn indicators and hazard warning flashers (➡ 53) (➡ 38)
- 4 Pushbutton, cancel flashing turn indicators and hazard warning flashers (➡ 54) (➡ 39)
- 5 Switch for handlebar-grip heating (OE) (➡ 47)



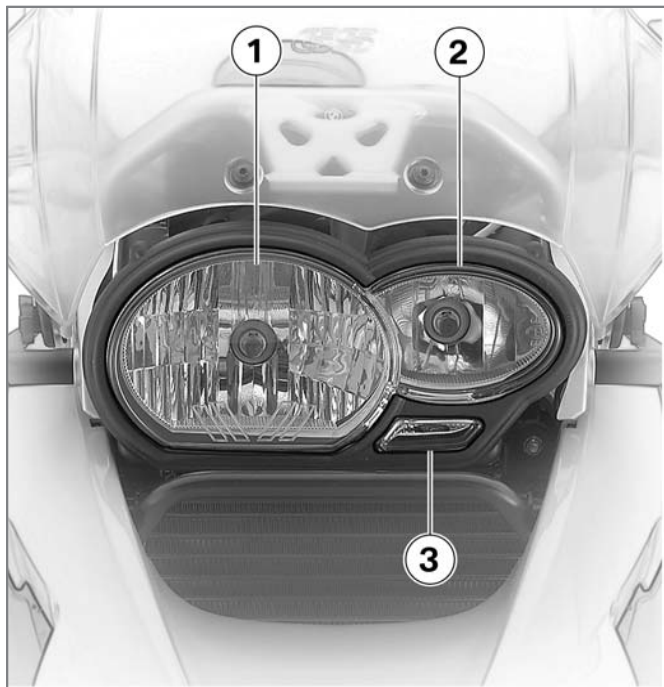


Instrument cluster

- 1 Speedometer
- 2 Rev. counter
- 3 Warning and telltale lights (➡ 21)
- 4 Multifunction display (➡ 21)
- 5 Telltale light for anti-theft alarm (OE) and sensor for instrument cluster lighting
- 6 Button for setting clock and operating Tripmaster (➡ 41) (➡ 39)

Headlight

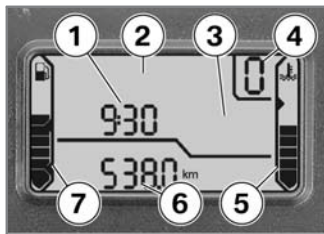
- 1 Low-beam headlight
- 2 High-beam headlight
- 3 Side lights



Status indicators

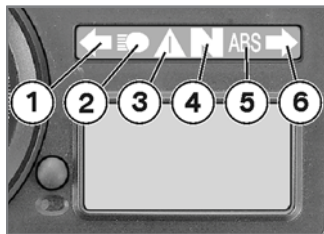
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Multifunction display



- 1 Clock
- 2 Panel for warnings (➡ 21)
- 3 Panel for the on-board computer's (OE) status indicators
- 4 Gear indicator (➡ 20)
- 5 Engine-oil temperature display (➡ 21)
- 6 Tripmaster display (➡ 39)
- 7 Fuel gauge (➡ 20)

Warning and telltale lights



- 1 Telltale light, left turn indicator
- 2 Telltale light, high-beam headlight
- 3 Warning light, general
- 4 Telltale light, neutral
- 5 Warning light, ABS (OE)
- 6 Telltale light, right turn indicator

ABS warning light^{OE}

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 displays 0; 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 (➡ 24)
	Lights up yellow		The FUEL ! warning appears on the display.	Fuel down to reserve (➡ 24)
	Lights up yellow		Appears on the display	Engine electronics (➡ 24)
	Flashes red four times per second		Appears on the display	Insufficient engine oil pressure (➡ 25)
			The "Check oil level" symbol appears on the display, accompanied by the CHECK OIL warning.	Engine-oil level too low (➡ 25)
	Lights up red		Appears on the display	Insufficient battery charge current (➡ 26)

Mode of presentation

Meaning



Lights up yellow

The LAMPR !
warning appears
on the display.

Rear light bulb defective (➡ 26)

The LAMPF !
warning appears
on the display.

Front light bulb defective (➡ 26)



Lights up yellow

The LAMPS !
warning appears
on the display.

Bulbs defective (➡ 27)

The DWA ! warn-
ing appears on
the display.

Anti-theft alarm battery weak (OE)
(➡ 27)



Lights up yellow

The DWA ! warn-
ing appears on
the display.

Anti-theft alarm battery flat (OE)
(➡ 27)

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 ! warning 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 (➡ 71)

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 flashes red four times per second.



Engine oil pressure symbol appears on the display.

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



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

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

- Checking engine oil level (➡ 95)

If the oil level is too low:

- Topping up the engine oil (➡ 96)

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



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

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

- Do not continue your journey.
- Have the fault rectified as quickly as possible by a

specialist workshop, preferably an authorised BMW Motorrad dealer.

Engine-oil level too low



The "Check oil level" symbol appears on the display, accompanied by the CHECK OIL warning. The electronic oil-level sensor has registered an excessively low oil level.

The only exact way of checking whether the oil level is correct is to check the oil sight glass. The next time you stop for fuel:

- Checking engine oil level (➡ 95)

If the oil level is too low:

- Topping up the engine oil (➡ 96)

The oil sensor might be defective if the "Check oil level" message appears even

though a check at the oil sight glass reveals that the oil level is correct.

If the oil level is too low:

- Seek the advice of 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.

The **LAMP R!** warning 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 and rear light bulb (➡ 115)

Front light bulb defective

The **LAMP F!** warning 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 (➡ 113)
- Replacing low-beam headlight bulb (➡ 111)
- Replacing parking-light bulb (➡ 115)
- Replacing turn indicator bulbs, front and rear (➡ 117)

Bulbs defective



General warning light lights up yellow.

The LAMPS ! warning 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.

Anti-theft alarm battery weak (OE)

The DWA ! warning appears on the display.

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

- Seek the advice of a specialist workshop, preferably

an authorised BMW Motorrad dealer.

Anti-theft alarm battery flat (OE)



General warning light lights up yellow.

The DWA ! warning appears on the display.

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^{OE}

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 (➡ 30)
			Flashes once per second Pull-away test not completed (➡ 30)
			Flashes four times per second Self-diagnosis not completed (➡ 30)
	Lights up red		Lights up ABS warning indicators defective (➡ 31)
	Lights up red		Flashes once per second ABS function not available (➡ 31)
	Lights up red		Flashes four times per second Residual braking function active (➡ 32)
	Flashes red once per second		Flashes once per second Brake fluid level in wheel brake circuit too low (➡ 32)
	Flashes red four times per second		Flashes four times per second ABS fault (➡ 33)

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
lights 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
whose fluid level cannot
be determined at the brake
fluid reservoirs.◀

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

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



Worn brake pads can
lengthen stopping distances
by a significant margin
and consequently cause accidents.

Apply the brakes in good
time.◀



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

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

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

will have to be checked for malfunctions and leaks.

- Switch off the ignition and pull the brake lever, then release it and depress the brake pedal.
- » Check the following:
 - Brake pressure perceptible at brake lever and at brake pedal.
 - Brakes acting on both wheels.
 - No visible signs of brake fluid leaking.

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

- If these criteria are satisfied, you can continue riding. 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.

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Ignition switch and steering lock

Keys

You receive one master key and one spare key. Please consult the information on the electronic immobiliser (EWS) if a key is lost or mislaid (➡ 37).

▶ Ignition switch and steering lock, tank filler cap lock and seat lock are all operated with the same key. On request, the cases and the topcase available as optional accessories 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. (➡ 65)

With OE BMW Motorrad Integral ABS (partially integral):

- Turn the key to position **1**.
 - » Side lights and all functions switched on.
 - » Engine can be started.

- » Pre-ride check is performed. (➡ 65)
- » ABS self-diagnosis is performed. (➡ 66) ◀

Switching off ignition

With OE BMW Motorrad Integral ABS (partially integral):



Brake servo assistance is not available when the ignition is off.

Do not switch off the ignition when riding.◀

- 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

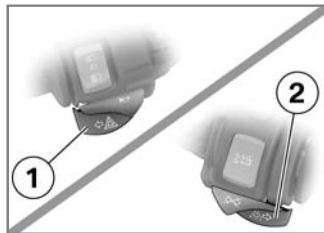
You can obtain replacement/extra keys only through an authorised BMW Motorrad dealer. The keys are part of an integrated security system, so the dealer is under an obligation to check the legitimacy of all applications for replacement/extra keys. If you want to have a lost key barred, you have to bring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

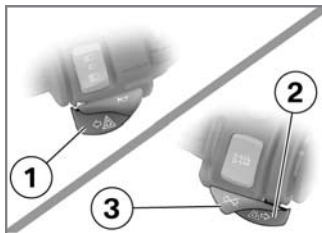
▶ The hazard warning flashers place a strain on the battery. Do not use the hazard warning flashers for longer than absolutely necessary.◀

▶ 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.

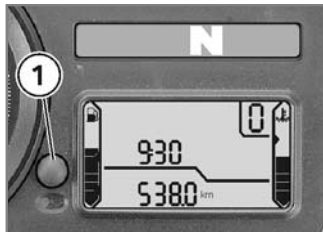
Switching off hazard warning flashers



- 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.

Tripmaster

Operating Tripmaster



You have the option of using pushbutton **1** in the instrument cluster to operate the Tripmaster as described below.

Selecting readings

- Switch on the ignition.

▶ When you switch on the ignition, the information shown by the Tripmaster when the ignition was switched off always reappears on the multifunction display.◀



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



The Tripmaster display field cycles through the following sequence:

- Total distance covered
- Tripmeter 1 (Trip I)
- Tripmeter 2 (Trip II)
- Residual range (once fuel level is down to reserve)

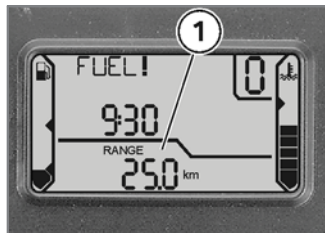
Resetting tripmeter

- Switch on the ignition.
- Select the desired tripmeter.



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

Residual range



Residual range **1** is displayed when the fuel level drops to reserve. 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 distance 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 Tripmaster 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.◀

Clock

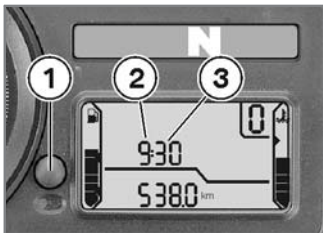
Setting clock



You have the option of using Tripmaster button **1** to set the clock as described below, if the Tripmaster is showing the reading for total distance covered.

Setting clock

- Switch on the ignition.



Attempting to set the clock while riding the motorcycle can lead to accidents.

Set the clock only when the motorcycle is stationary. ◀

- Press and hold down button **1** until the reading changes.
- » Hours reading **2** starts to flash.
- Press button **1**.
- » The hour increments by one each time you press the button.

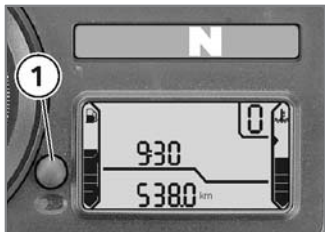
- Press and hold down button **1** until the reading changes.
- » Minutes reading **3** starts to flash.
- Press button **1**.
- » The minute increments by one each time you press the button.
- Press and hold down button **1** until the reading changes.
- » The reading stops flashing.
- » The time is now set.

On-board computer^{OE}

Pushbutton, on-board computer



If the motorcycle is equipped with an on-board computer, the on-board computer button **1** takes the place of the Tripmaster button on the handlebar fitting.



In this case, you have to use button **1** in the instrument cluster to operate the Tripmaster. In this case, you have to use this button to set the clock as well. The on-board computer incorporates the function for calculating and displaying the residual range.

Selecting readings

- Switch on the ignition.



- Press BC button **1** once.

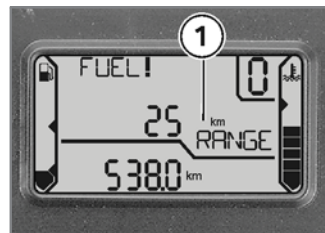


The on-board computer's display field cycles through the following sequence:

- Clock
- Residual range

- Average speed
- Average consumption
- Oil level
- Ambient temperature

Residual range



The description of how to read the residual range in the section on the Tripmaster (➡ 41) also applies to the on-board computer. You can also view residual range **1** before the fuel level drops to reserve.

Calculating average speed



Average speed **1** is calculated on basis of the time elapsed since the last RESET. 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/h".

Calculating average consumption



Average consumption **1** is calculated by dividing the distance covered since the last RESET by the corresponding amount of fuel used.

Resetting average consumption



- Repeatedly press BC button **1** until the average fuel consumption appears in the display.
- Hold the BC button down for at least 2 seconds (RESET).
- » The display shows "--.- l/100 km".

Oil level



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

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

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

The readings mean:

OK: Oil level is correct.

CHECK: Check the oil level in the sight glass the next time you stop for fuel.



Remains visible until the sensor subsequently registers a correct oil level.

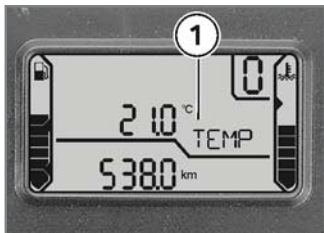
---: Oil level cannot be measured (conditions as stated above not satisfied).

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 **1** 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.

Emergency off switch (kill switch)

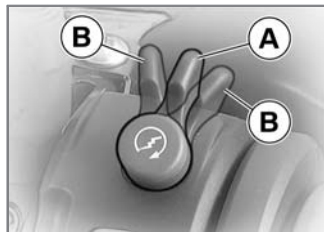


1 Emergency off switch (kill switch).



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. ◀

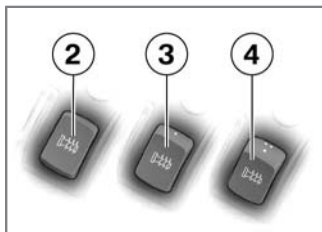
Grip heating^{OE}



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)

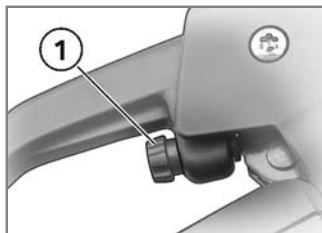
Clutch

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 adjusting screw 1 clockwise.

▶ The adjusting screw is indexed and is easier to turn if you push the clutch lever forward.◀

» Span between handlebar grip and clutch lever increases.

- Turn adjusting screw **1** counter-clockwise.
- » Span between handlebar grip and clutch lever decreases.

Brakes

Adjusting handbrake lever



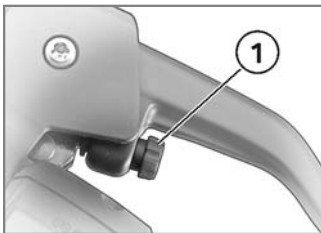
Changing the position of the brake-fluid reservoir can allow air to penetrate the brake system.

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 adjusting screw **1** clockwise.



The adjusting screw is indexed and is easier to turn if you push the handbrake lever forward. ◀

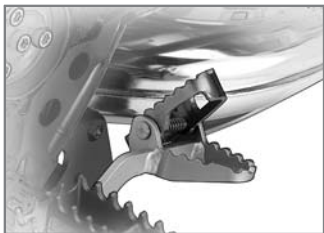
- » Span between handlebar grip and handbrake lever increases.
- Turn adjusting screw **1** counter-clockwise.
- » Span between handlebar grip and handlebar lever decreases.

Adjustable footbrake lever

You can adjust the footbrake lever for riding seated or standing on the footrest pegs.



Position of the footbrake lever for riding seated.



Position of the footbrake lever for riding standing on the pegs.

Adjusting footbrake lever

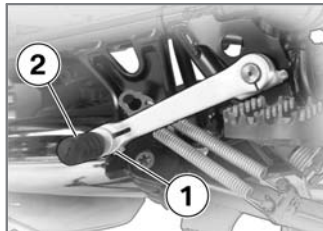
- Make sure the ground is level and firm and place the motorcycle on its stand.



- Push pedal **1** of the brake lever forward and turn it to the correct limit position.
» The swivel lever engages with an audible click.

Shift lever

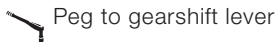
Adjusting shift lever



- Slacken screw **1**.
- Turn peg **2** to the desired position.

▶ You might experience difficulties with gear-shifts if the peg is set either too high or too low. If you have difficulties shifting gear consult a specialist workshop, preferably an authorised BMW Motorrad dealer.◀

- Tighten screw **1** to the specified tightening torque.



Peg to gearshift lever

8 Nm

Lights

Switching on the side lights

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

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

Switching on the low-beam headlight

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

▶ When the engine is not running you can switch on the high-beam headlight by switching on the ignition

and either switching on the high-beam headlight or operating the headlight flasher. ◀

Switching on high-beam headlight



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

- Press the bottom part of switch **1** for the high-beam headlight.
- » The high-beam headlight is switched on until you release the button (headlight flasher).

Switching on 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.
- » Parking lights switched on.

Switching off parking lights

- Switch on the ignition.
- » Parking lights switched off.

Switching on auxiliary headlights^{OE}



- Press the bottom part of switch **1** for the auxiliary headlights.
- » Auxiliary headlights switched on.

Switching off auxiliary headlights^{OE}



- Press the top part of switch **1** for the auxiliary headlights.
- » Auxiliary headlights 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.

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.

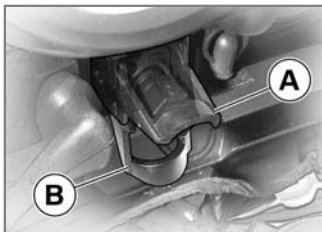
▶ Consult a specialist workshop, preferably an authorised BMW Motorrad dealer, if you are unsure whether the headlight basic setting is correct.◀

Headlight beam-throw adjustment



1 Headlight beam-throw adjustment

You can set the headlight to either of two positions with the aid of the beam-throw adjuster.



- A** Neutral position
B Position for heavy load

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

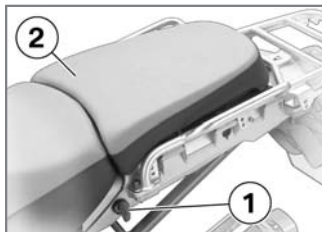


- Press cancel button **3**.
 - » Flashing turn indicators switched off.
 - » Turn indicator telltale light is off.

Front and rear seats

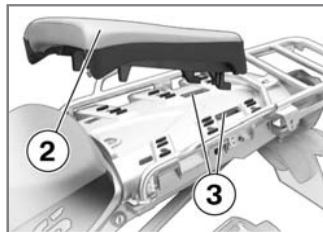
Removing rear seat

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



- Turn key **1** clockwise in the seat lock, while pressing down the front part of rear seat **2**.
- Lift rear seat **2** at the front and remove the seat.

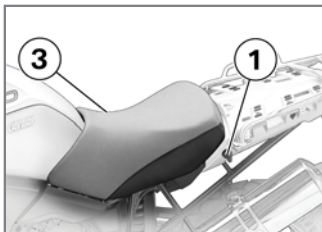
Installing rear seat



- Engage rear seat **2** in mount **3**.
- Push down firmly on rear seat **2**, applying pressure to the front of the seat.
 - » The rear seat engages with an audible click.

Removing front seat

- Make sure the ground is level and firm and place the motorcycle on its stand.
- Removing rear seat (➡ 54)

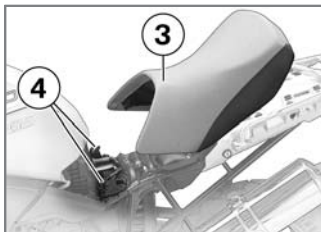


- Turn key **1** counter-clockwise in the seat lock, while pressing down the rear part of front seat **3**.
- Lift front seat **3** at the rear and remove the seat.

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. ◀

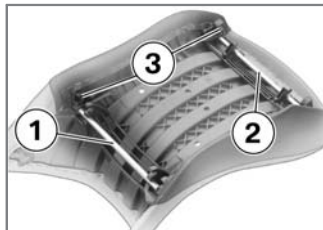


- Engage front seat **3** in mounts **4**.
- Allow the front seat to rest on the motorcycle.
- Applying pressure to the rear of the seat, push the front seat slightly forward and then press the seat firmly down.
- » The front seat engages with an audible click.
- Installing rear seat (➡ 54)

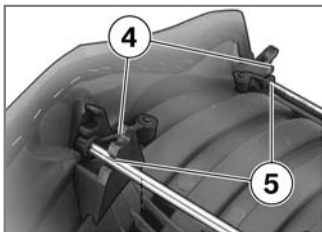
Adjusting front seat

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

- Removing front seat (➡ 54)
- Turn the front seat upside down.



- Introduce seat rods **1** and **2** into holders **3**.



! The front seat can work loose and wobble if the two seat rods are not in the same position.

Always be sure to install both seat rods in the same position. ◀

- Introduce the seat rod in position **4**.
- » Seat set to high position.
- Introduce the seat rod in position **5**.
- » Seat set to low position.
- Installing front seat (➡ 55)

Helmet holder

Using helmet holder

- Removing front seat (➡ 54)



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

- Attach the helmet to helmet holder **1** by means of the chin strap.
- Installing front seat (➡ 55)

Mirrors

Adjusting mirrors



- Pivot the mirror to the correct position by pressing gently at the edge.

Adjustable mirror arm

You can adjust the mirror arm if you find that the range of adjustment allowed by the mirror itself is insufficient.

Adjusting mirror arm



- Push protective cap **1** up over the threaded fastener on the mirror arm.
- Slacken union nut **2**.
- Turn the mirror arm to the appropriate position.
- Retighten union nut **2**.
- Pull protective cap **1** over the threaded fastener.

Adjusting windscreen



- Slacken clamping screws **1** on left and right.
- Pivot the windscreen forward or back to the desired position.

 You can set the windscreen to any of several different positions.◀

- Make sure that clamping screws **1** on left and right are symmetrically positioned.
- Tighten the clamping screws.

Spring preload

Spring preload and weight

It is essential to set spring preload of the rear suspension 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

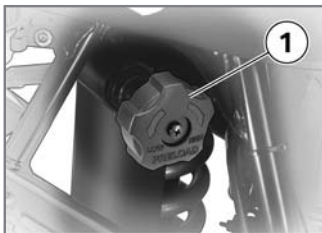
 Your motorcycle's handling will suffer if you do not match the spring-preload and damping-characteristic settings.

Adjust the damping characteristic to suit spring preload.◀

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

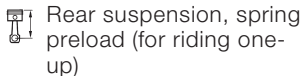
Do not attempt to adjust spring preload unless the motorcycle is at a standstill. ◀

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

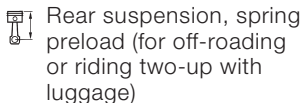


- If you want to increase spring preload, turn knob **1** in the direction indicated by the HIGH arrow.
- If you want to reduce spring preload, turn knob **1** in the

direction indicated by the LOW arrow.



Turn knob as far as it will go counter-clockwise in the direction indicated by the LOW arrow (L) and then turn it 10 clicks clockwise



Turn knob as far as it will go clockwise in the direction indicated by the HIGH arrow (H).

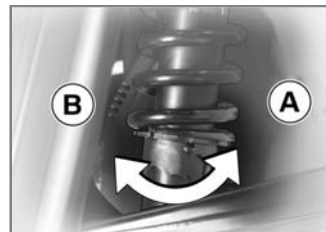
Spring preload and road-surface condition

It is essential to set spring preload of the front suspension to suit the terrain. Increase spring preload for rid-

ing in rough terrain and reduce if the terrain is level.

Adjusting spring preload for front wheel

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



- If you want to reduce spring preload, use the tool from the on-board toolkit to turn the spring retainer in the **A** direction.
- If you want to increase spring preload, use the tool from the on-board toolkit to

turn the spring retainer in the **B** direction.

 The range of adjustment comprises five settings. ◀

 Spring preload at front wheel

Spring preload at setting 2
(On-road riding)

Spring preload at setting 3
(For riding on gravel tracks and similar and with load)

Spring preload at setting 5
(For riding off-road)

Shock absorbers

Shock-absorber settings and spring preload

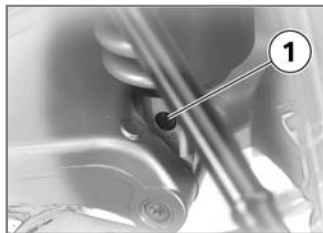
Damping must be adapted to suit spring preload. An increase in spring preload requires firmer damping, a reduction in spring preload requires softer damping.

Adjusting damping for rear wheel

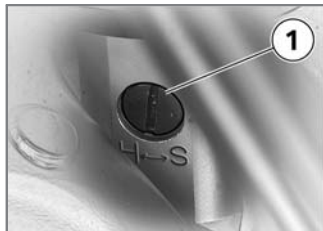
 Your motorcycle's handling will suffer if you do not match the spring-preload and damping-characteristic settings.

Adjust the damping characteristic to suit spring preload. ◀

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



- You adjust the rear shock absorber by turning adjusting screw **1**.



- If you want a harder damping characteristic, use a screwdriver to turn adjust-

ing screw **1** in the direction indicated by the H arrow.

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



Rear suspension, basic setting

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

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.

Fit metal valve caps with rubber seals and screw them on firmly to prevent sudden deflation. ◀



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 + 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 + luggage

2.9 bar (Tyre cold)

If tyre pressure is too low:

- Correct tyre pressure.

Riding

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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

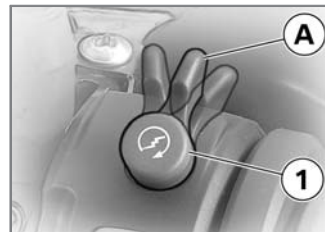
You cannot start the motorcycle with the side stand extended and a gear engaged. The engine will switch itself off if you start it with the gearbox in neutral and then engage a gear before retracting the side stand.

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. (➡ 65)

With OE BMW Motorrad Integral ABS (partially integral):

 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. ◀

- Switch on the ignition.
 - » Pre-ride check is performed. (➡ 65)

» ABS self-diagnosis is performed. (➡ 66) ◀



- Press starter button **1**.

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

 The start attempt is automatically interrupted if battery voltage is too low. Recharge the battery before

you start the engine, or use jump leads and a donor battery to start. ◀

- » The engine starts.
- » Consult the troubleshooting chart below if the engine refuses to start. (➡ 136)

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. 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 yellow.

- The CHECK! reminder appears on the display.
- If the 'General' warning light is not displayed:



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

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

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

ABS warning lights^{OE}

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



Version 1.



Version 2.

The description below is based on version 1.

ABS self-diagnosis^{OE}

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 with BMW Integral ABS^{OE}

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 speeds

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-

iciency 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.◀

Riding off-road

Tyre pressures

 Tyre pressures reduced for off-road riding impair the motorcycle's handling characteristics on surfaced roads and can lead to accidents.

Always check that the tyre pressures are correct.◀

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.◀

Deactivatable ABS^{OE}

You can deactivate BMW Integral ABS for off-roading (➡ 78).

Spring preload and shock-absorber settings

 The off-road settings for spring preload and shock absorber damping characteristic will impair the motorcycle's handling characteristics on surfaced roads.

If you have been off-roading, remember to correct spring preload and shock-absorber damping characteristics be-

fore you return to surfaced roads. ◀

Parking your motorcycle

Placing motorcycle on side stand



If the ground is soft or uneven, there is no guarantee that the motorcycle will rest firmly on the stand.

Always check that the ground under the stand is level and firm. ◀

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



The side stand is designed to support only the weight of the motorcycle. Do not lean or sit on the mo-

torcycle 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 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

- Unlock the steering lock. With OE BMW Motorrad Integral ABS (partially integral):



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. ◀
- Pull the handbrake lever.

- Swing your right leg over the seat and lift the motorcycle to the upright position.
- From the left, grip the handlebars with both hands.
- 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 mo-

torcycle with the centre stand extended.◀

- Check that the motorcycle is standing firmly.

Removing motorcycle from centre stand

- Unlock the steering lock. With OE BMW Motorrad Integral ABS (partially integral):

 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.
- With your right hand, grip the rear grab handle or the rear frame.
- 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. ◀

 Fuel can attack the material of the windscreen and the side slipstream deflectors, which become dull or unsightly. Wipe off the windscreen and slipstream deflectors immediately if they come into contact with fuel. ◀

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

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



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



Recommended fuel grade

- Super unleaded
- 95 ROZ/RON



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

- Regular, unleaded
- 91 ROZ/RON



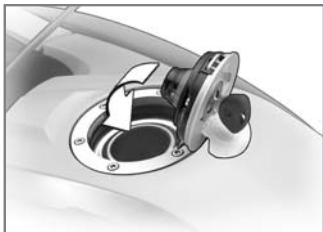
Usable fuel capacity

33 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^{OE}

How does ABS work?

The amount of braking force that can be transferred to the road depends on factors that include the coefficient of friction of the road surface. Loose stones, ice and snow or a wet road all have much lower coefficients of friction than a clean, dry asphalt surface. The lower the coefficient of friction, the longer the braking distance.

If the rider increases braking pressure to the extent that braking force exceeds the maximum transferrable limit, the wheels start to lock and the motorcycle loses its directional stability; a fall is imminent. Before this situation can occur, ABS intervenes and adapts braking pressure

to the maximum transferrable braking force, so the wheels continue to turn and directional stability is maintained irrespective of the condition of the road surface.

What are the effects of surface irregularities?

Humps and surface irregularities can cause the wheels to lose contact temporarily with the road surface; if this happens the braking force that can be transmitted to the road can drop to zero. If the brakes are applied under these circumstances the ABS has to reduce braking force to ensure that directional stability is maintained when the wheels regain contact with the road surface. At this instant the BMW Motorrad Integral ABS must assume an extremely low coef-

ficient of friction, so that the wheels will continue to rotate under all imaginable circumstances, because this is the precondition for ensuring directional stability. As soon as it registers the actual circumstances, the system reacts instantly and adjusts braking force accordingly to achieve optimum braking.

How can stopping distance be minimised?

Each time the brakes are applied, a load distribution shift takes place with the load shifting forward from the rear to the front wheel. The sharper the motorcycle decelerates, the more load is shifted to the front wheel. The higher the wheel load, the more braking force can be transmitted without the wheel locking.

To optimise stopping distance, apply the front brakes rapidly and keep on increasing the force you apply to the brake lever. This makes the best possible use of the dynamic increase in load at the front wheel. Remember to pull the clutch at the same time. In the "panic braking situations" that are trained so frequently braking force is applied as rapidly as possible and with the rider's full force applied to the brake levers; under these circumstances the dynamic shift in load distribution cannot keep pace with the increase in deceleration and the tyres cannot transmit the full braking force to the surface of the road. ABS has to intervene to keep the front wheel from locking; this increases stopping distance.

Reserves for safety

The potentially shorter 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.

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 motor-cycle can flip over.



Severe braking can cause the rear wheel to lift off the ground.

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

What happens if ABS fails?

A malfunction of the BMW Motorrad Integral ABS is brought to the rider's attention by a warning light in the instrument cluster. The integral braking function and the brake booster remain functional if only ABS control fails. If these systems fail as well, the residual braking function comes into play.

Under these circumstances significantly more force has to be applied to the brake levers and brake lever travel increases. The residual braking function is a mechanical function and irrespective of battery charge state, it is always available if the BMW Motorrad Integral ABS fails. It complies with all statutory requirements for the design of motor-vehicle brake systems in countries throughout the world and enables the rider to brake the motorcycle.

Always bear the following in mind if you ride with the residual braking function active:

- Set the brake lever to maximum span to maximise possible brake-lever travel
- Always brake by applying both the front and rear brakes

- When justified by the road-traffic situation repeatedly test the brakes to familiarise yourself with brake response
- Take the road surface duly into account and adapt braking force accordingly
- This is a get-you-home function, so you should consult a specialist workshop, preferably an authorised BMW motor-cycle dealer, at the earliest possible opportunity.

What is the design baseline for BMW Motorrad Integral ABS?

Within the limits imposed by physics, the BMW Motorrad Integral ABS ensures directional stability on any surface. The system is not optimised for special requirements that apply under extreme compet-

itive situations off-road or on the track.

Brake booster

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

Partially integral brakes

Your motorcycle is equipped with partially integral brakes. Both front and rear brakes are applied when you pull the handbrake lever. The 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.

What significance devolves on regular maintenance?



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

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

Braking situations in which ABS actively intervenes produce a sharp rise in electricity consumption as opposed to ordinary braking manoeuvres, and this places a severe strain on the battery. Under normal riding conditions the battery is being charged constantly, so its charge capacity is normally adequate. If the motorcycle is to be off the road for a period of several weeks, a trickle charger available from an authorised BMW Motorrad dealer should be connected or the battery disconnected and its charge level topped up before the motorcycle is restored to use. It is typical of road-safety training

courses that they involve an exceptionally high number of braking manoeuvres with ABS intervention occurring in rapid succession, alternating with waits and assessment phases in which the motorcycle is not on the move. The ABS interventions place a severe load on the battery, and because very little actual riding is undertaken the battery is not being charged in the normal way. In isolated instances, this unusual set of circumstances can result in conditions in which the regulatory function is no longer at the rider's disposal when the brakes are applied by extremely fast and vigorous actuation of the brake lever because this, in combination with the diminished level of power in the electrical system,

brings ABS to the limit of its technical capabilities. Observations on the part of BMW Motorrad in the field indicate that a comparable situation has not arisen in ordinary road traffic or even during on-circuit training courses.

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

- Check the telltale and warning lights before each braking practice
- After five braking practices at the most, ride the motorcycle a lengthy distance to recharge the battery
- Switch off consumers such as seat heating and heated handlebar grips, radio, navigation system and accessories connected to the sockets

- Keep the ignition switched off during breaks and consultations; if the engine is killed by means of the kill switch the light and all electronic systems remain on and will drain the power reserves of the battery

Deactivatable ABS

Under certain circumstances, it can be best to dispense with ABS when you right on loose surfaces. Consequently, you have the option of temporarily deactivating this motorcycle's ABS function.

Deactivating ABS does not impair the effectiveness of the brake booster or the integral braking function.

Deactivating ABS function

- Bring the motorcycle to a standstill.
- Switch off the ignition.



- Press and hold down ABS button **1**.
- Switch on the ignition.
- » ABS self-diagnosis is performed.

ABS ABS warning light flashes four times per second.

- » ABS self-diagnosis terminated.

ABS ABS warning light flashes once per second.

- Release ABS button **1**.
- » The ABS function is deactivated.

ABS ABS warning light ON.

Activating ABS function

- Bring the motorcycle to a standstill.
- Switch the ignition off and then on again.
- » The ABS function is restored.

Accessories

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Case ^{OA}	84
Topcase ^{OA}	87

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 socket **1** and the extra socket available as an optional accessory (OA) is cut off automatically if battery voltage is low or the load exceeds the maximum permissible amperage.

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.

Route the cables as described above.◀

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.



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. BMW recommends limiting top speed to 180 km/h if you ride with cases (OA) and/or topcase (OA) fitted to the motorcycle.

- 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 (OA), left and right: 10 kg.
- Max. load in topcase (OA): 5 kg.

Aluminium rubbings

It is advisable to stow sensitive items of luggage in a bag, in order to prevent them from becoming marked by rubbing against the aluminium. BMW Motorrad offers a "watertight bag" as an optional accessory for use with aluminium cases and the aluminium topcase. You can obtain additional information from your authorised BMW Motorrad dealer.

Set of carry handles

Your authorised BMW Motorrad dealer can supply a "set of carry handles" as an optional accessory to make the cases and topcase easier to carry.

These optional accessories also make good lashing points for items of luggage and the "watertight bag" optional accessory on cases and topcase.

Case^{OA}

Opening cases



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

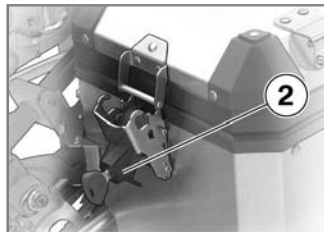
▶ You can open the lid of the case at either catch.◀

» The case is unlocked.

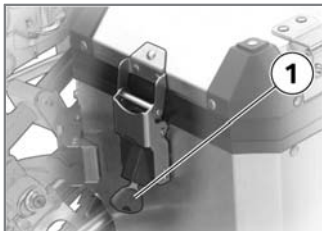


- Pull catch **2** up as far as it will go, while pressing down on the case lid.
 - » The catch is open.
- Open the lid.

Closing cases



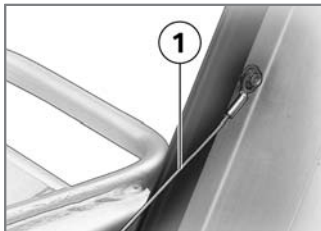
- Push case lid and catch **2** down, engaging the catch hook in the case lid.
 - » The catch engages with an audible click.



- Turn key **1** clockwise.
» The case lock is engaged.
- Remove the key.

Removing case lid

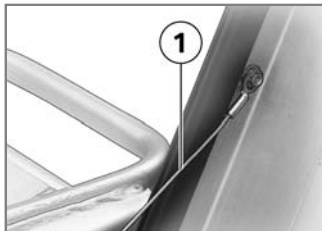
- Open the lid.



- Disengage retainer **1**.
- Close the case lid.
- Open the second catch of the case lid.
- Remove the case lid.

Installing case lid

- Place the case lid on the case.
- Close one of the catches.
- Open the lid.



- Engage retainer **1**.
- Close the case lid.

Removing case



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

» The case is unlocked.



- Push catch **2** in as far as it will go, while holding the case.

» The catch is open.

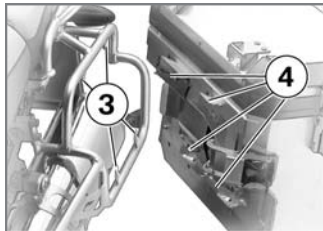


The left case and the case carrier can become hot on long rides.

Allow the case and the case carrier to cool down before removing the case.◀

- Pull the case forward as far as it will go and then out to remove.

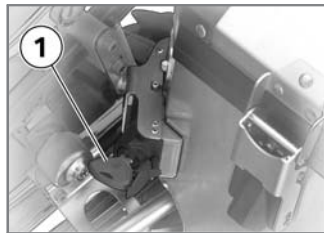
Installing cases



- Position the case on the bottom rail of the case carrier in such a way that hooks **4** are in front of mounts **3**.
- Pivot the case against the top rail, push it back into the mounts and hold it in position.



- Press catch **2** out as far as it will go.
- » The catch engages with an audible click.



- Turn key **1** clockwise.
- » The case lock is engaged.

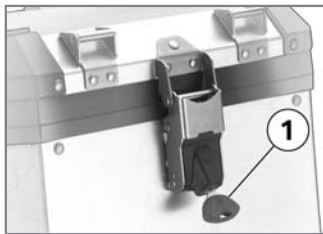
- Remove the key.

Topcase^{OA}

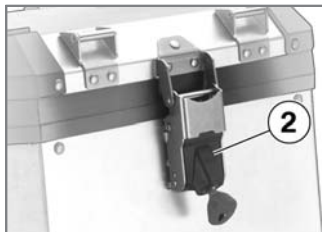
Topcase and off-roading

It is advisable to either remove the topcase or fit the backrest cushion available as an optional extra if you intend off-roading.

Opening topcase



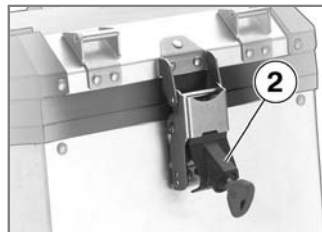
- Turn key **1** counter-clockwise.
- » The topcase is unlocked.



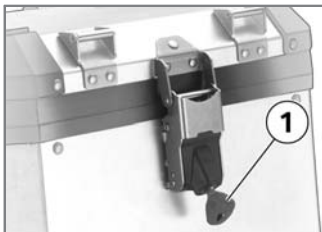
- Pull catch **2** up as far as it will go, while pressing down on the topcase lid.
- » The catch is open.
- Open the topcase lid.

Closing topcase

- Close the topcase lid.



- Push topcase lid and catch **2** down, engaging the catch hook in the topcase lid.
- » The catch engages with an audible click.



- Turn key **1** clockwise.
- » The topcase is locked.
- Remove the key.

Removing topcase

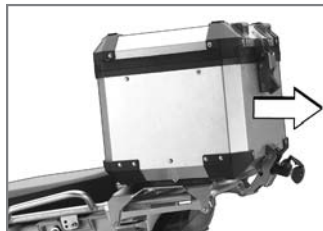


- Turn key **1** counter-clockwise.

» The topcase is unlocked.

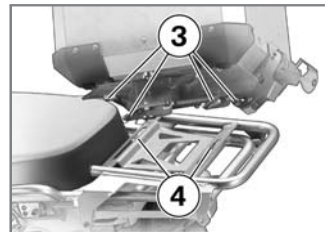


- Press catch **2** down as far as it will go.

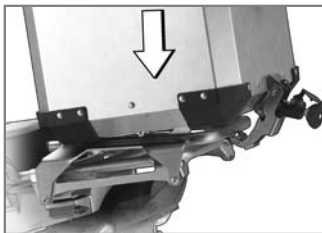


- Pull the topcase back as far as it will go and then lift it up to remove.

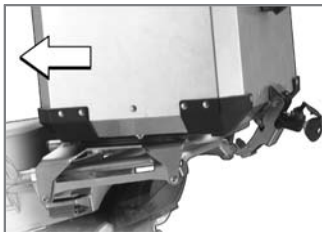
Installing topcase



- Position the topcase on the topcase mount in such a way that hooks **3** are just behind rails **4**.



- Press the topcase down until it is seated flat on the topcase carrier.



- Push the topcase forward as far as it will go, taking care not to push the motor-

cycle forward off its centre stand.



- Push catch **2** up.
» The catch engages with an audible click.

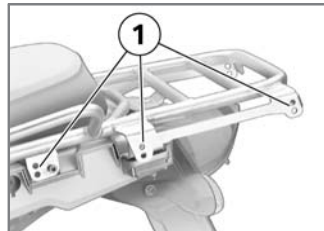


- Turn key **1** clockwise.

- » The topcase is locked.
- Remove the key.

Adjustable topcase mount

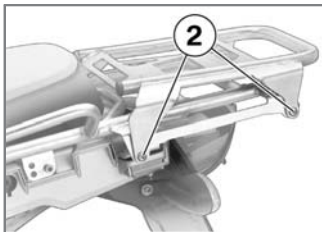
The topcase mount can be installed on the luggage carrier or instead of the rear seat.



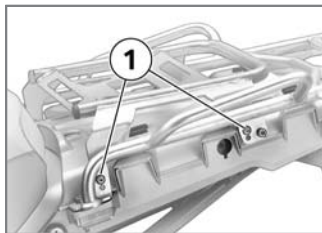
The luggage carrier has two sets of holes, one above the other, at locations **1**. The topcase mount can be tilted forward or back by using holes at different heights front and back. This enables the topcase to be used as a back-

rest in combination with the topcase cushion available as an optional accessory.

Repositioning topcase mount



- Remove screws **2** on left and right.
- Removing rear seat (➡ 54)



- Install the topcase mounts at the desired angle in holes **1**.
- Installing rear seat (➡ 54)

Maintenance

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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 (Re-pROM) for your motorcycle, which is available from your authorised BMW Motorrad dealer.



Toolkit

- 1** Extension, hook wrench
- 2** Hook wrench
- 3** Screwdriver blade, cross-head/flat
- 4** Open-ended spanner, w/f 17
- 5** Lever for cap, oil filler neck
- 6** Open-ended spanner, w/f 8/10
- 7** TORX wrench T15
- 8** TORX wrench, T30
- 9** Extension, screwdriver
- 10** Screwdriver blade, cross-head/Torx 25
- 11** Screwdriver handle

▶ A supplementary on-board toolkit for more complicated maintenance work on your motorcycle is available from BMW Motor-rad. You can obtain additional

information from your authorised BMW Motorrad dealer.◀

Engine oil

Checking engine oil level

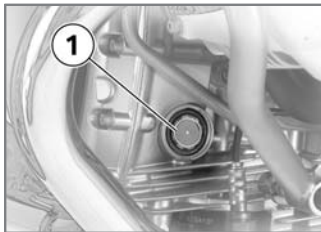
 The engine can seize if the oil level is low, and this can lead to accidents. Always make sure that the oil level is correct. ◀

 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.

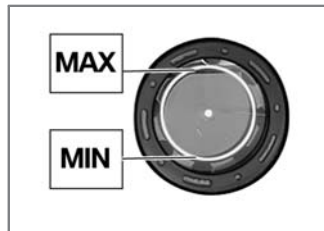
In order to ensure that the engine oil level is read correctly, check the oil level only after a lengthy trip. ◀

 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. ◀

- Hold the motorcycle up-right or place it on its centre stand.
- Wait five minutes after switching off the engine at operating temperature.



- Check the oil level in oil sight glass **1**.



Engine oil, specified level

between MIN and MAX marks

If the oil level is below the MIN mark:

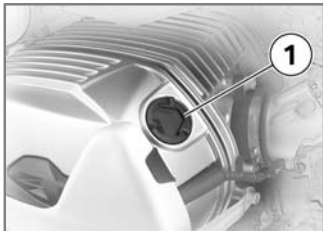
- Top up the engine oil.

If the oil level is above the MAX mark:

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

Topping up the engine oil

- Checking engine oil level (→ 95)



 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.
- Install the cap of the 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 operation

- Pull the handbrake lever.
- » The pressure point must be clearly perceptible.
- Press the footbrake lever.
- » The pressure point must be clearly perceptible.

If pressure points are not clearly perceptible:

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

With OE BMW Motorrad Integral ABS (partially integral):

- Switch on the ignition.
- Wait for ABS self-diagnosis to complete.
- Pull the handbrake lever.
 - » The pressure point must be clearly perceptible.
 - » The noise of the hydraulic pump running must be audible.
- Press the footbrake lever.
 - » The pressure point must be clearly perceptible.
 - » The noise of the hydraulic pump running must be audible.

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



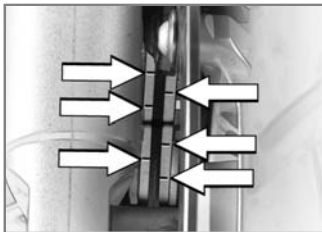
Brake pads worn past the minimum permissible thickness can cause a reduction in braking efficiency and under certain circumstances they can cause damage to the brake system.

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. Viewing direction: Between wheel and fork tube toward the brake caliper.



 Brake-pad thickness, front

The wear indicators (arrows) must be clearly visible on each brake pad.

If the wear indicating mark is no longer clearly visible:

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

Checking brake pad thickness, rear brakes



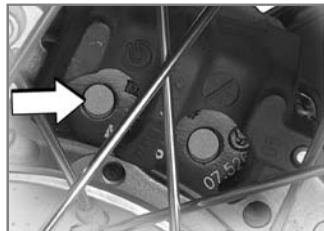
Brake pads worn past the minimum permissible thickness can cause a reduction in braking efficiency and under certain circumstances they can cause damage to the brake system.

In order to ensure the dependability of the brake system, do not permit the brake pads to wear past the minimum permissible thickness. ◀

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



- Visually inspect brake pads **1** from the left to ascertain their thickness.



Brake-pad thickness, rear

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

If the brake disc is visible:

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

Brake fluid

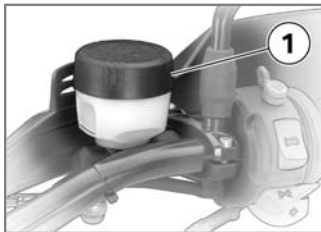
Checking brake-fluid level, front brakes



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

- Make sure the ground is level and firm and hold the motorcycle upright.

- Move the handlebars to the straight-ahead position.



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

▶ The brake fluid level in the brake fluid reservoir drops as the brake pads wear. ◀



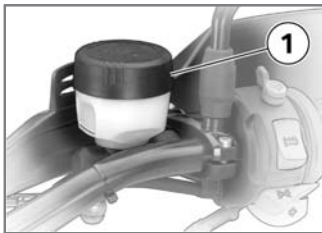
Brake fluid level, front

Do not permit the brake fluid level to drop below the MIN mark (Motorcycle upright and handlebars in straight-ahead position)

A drop in brake fluid level below the MIN mark is indicative of a fault in the brake system.

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

With OE BMW Motorrad Integral ABS (partially integral):



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

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



Brake fluid level, front

With OE BMW Motorrad Integral ABS (partially integral):

Do not permit the brake fluid level to drop (Motorcycle

upright and handlebars in straight-ahead position)◀ Any drop in brake fluid level, even if the level remains above the MIN mark, is indicative of a fault in the brake system.

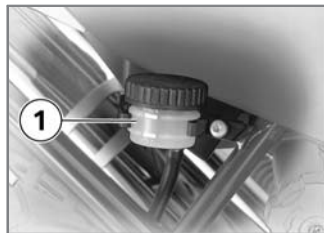
- Have the defect rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad dealer.◀

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 hold the motorcycle upright.



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

▶ The brake fluid level in the brake fluid reservoir drops as the brake pads wear.◀



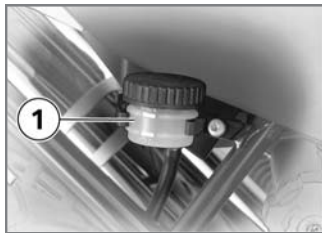
Brake fluid level, rear

Do not permit the brake fluid level to drop below the MIN mark (Motorcycle upright)

A drop in brake fluid level below the MIN mark is indicative of a fault in the brake system.

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

With OE BMW Motorrad Integral ABS (partially integral):



- 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

With OE BMW Motorrad Integral ABS (partially integral):

Do not permit the brake fluid level to drop (Motorcycle upright) ◀

Any drop in brake fluid level, even if the level remains above the MIN mark, is indicative of a fault in the brake system.

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

Clutch

Checking clutch operation

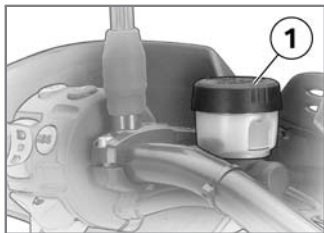
- Pull the clutch lever.
 - » The pressure point must be clearly perceptible.

If the pressure point is not clearly perceptible:

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

Checking the clutch fluid level

- Make sure the ground is level and firm and hold the motorcycle upright.
- Move the handlebars to the straight-ahead position.



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

▶ Wear of the clutch causes the fluid level in the clutch fluid reservoir to rise.◀



 Clutch fluid level

Do not permit the clutch fluid level to drop. (Motorcycle upright and handlebars in straight-ahead position)

A drop in clutch fluid level below the MIN mark is indicative of a fault in the clutch system.

 Unsuitable hydraulic fluids could cause damage to the clutch system. Do not attempt to top up the system with fluids of any kind.◀

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

▶ The clutch system is filled with a special hydraulic fluid that does not have to be changed.◀

Tyres

Checking tyre tread depth

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

good time before they wear to the minimum permissible tread depth. ◀

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

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

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

- Replace tyre.

Top speed



The motorcycle's top speed might be higher than the maximum speed permitted for the tyres. Excessive speeds can damage the tyres and this could cause accidents.

Comply with the tyre-specific speed restrictions. ◀

Always bear the maximum permissible top speed of the tyres in mind when riding a motorcycle fitted with massive-bar tyres.

Affix a label stating the maximum permissible speed in the rider's field of vision.

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.

Checking spokes

- Make sure the ground is level and firm and place the motorcycle on its stand.
- Draw the handle of a screwdriver or a similar instrument across the spokes and listen to the notes of the individual spokes.

If the notes vary:

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

Wheels

Approved wheels and tyres

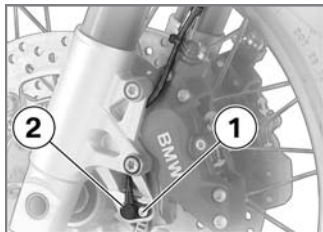
For each size of tyre BMW Motorrad tests certain makes, and approves those that it certifies as roadworthy. If BMW Motorrad has not approved the wheels and tyres, it cannot assess their suitability or provide any guarantee of road safety.

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.

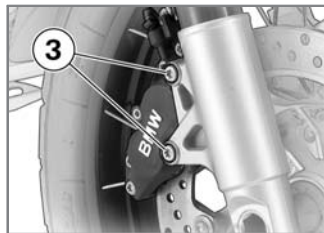
Removing front wheel

- Make sure the ground is level and firm and place

the motorcycle on its centre stand or the auxiliary stand. With OE BMW Motorrad Integral ABS (partially integral):

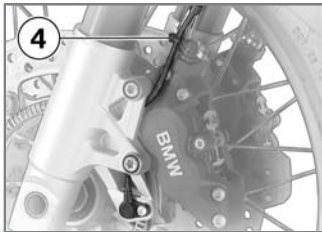


- Remove securing screw **1** of the ABS sensor from below the left brake caliper.
- Withdraw ABS sensor **2** from its bore.◀

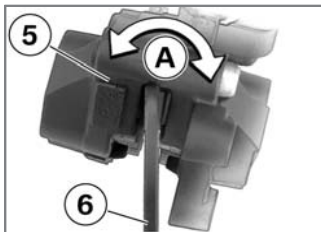


- ⚠** Once the calipers have been removed, there is a risk of the brake pads being pressed together to the extent that they cannot be slipped back over the brake disc on reassembly. Do not operate the handbrake lever when the brake calipers have been removed.◀
- Remove securing screws **3** of the brake calipers on left and right.

With OE BMW Motorrad Integral ABS (partially integral):



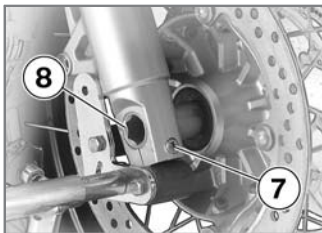
- When removing the left brake caliper, take care not to damage ABS sensor cable **4**.<
- Mask off the parts of the wheel rim that could be scratched in the process of removing the brake calipers.



- Force the brake pads slightly apart by rocking brake calipers **5** back and forth **A** against brake discs **6**.
- Carefully pull the brake calipers back and out until clear of the brake discs.



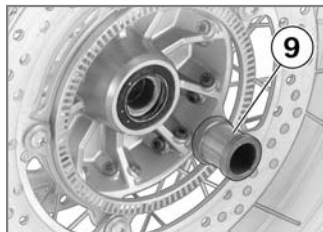
- Lift the front of the motorcycle on the front wheel stand or a suitable auxiliary stand until the front wheel is clear to turn. BMW Motorrad recommends the BMW Motorrad front wheel stand.



- Remove axle clamping screw **7**.
- Remove quick-release axle **8**, holding the wheel as you do so.

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

- Lower the front wheel to the ground between the front forks.
- Roll the front wheel forward to remove.



- Remove spacing bushing **9** from the front-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.◀

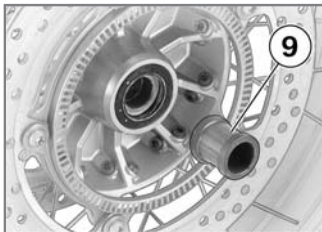
⚠ The front wheel must be installed right way round to rotate in the correct direction.

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

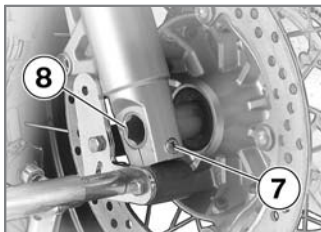
- When installing the wheel, take care not to damage brake pipes, brake discs, brake pads and the rim.

With OE BMW Motorrad Integral ABS (partially integral):

- When installing the wheel, take care not to damage the ABS sensor cable, the ABS sensor ring and the ABS sensor.◀



- Install spacing bushing **9** in the wheel hub.
- Roll the front wheel into position between the front forks.



- Raise the front wheel, install quick-release axle **8** and tighten to specified tightening torque.

 Quick-release axle in axle holder

50 Nm

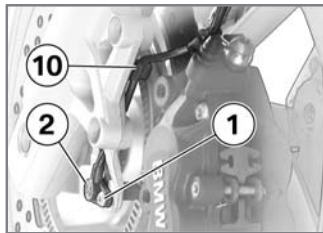
- Tighten axle clamping screw **7** to the specified torque.

 Quick-release axle clamp screws

19 Nm

- Remove the front wheel stand.

With OE BMW Motorrad Integral ABS (partially integral):



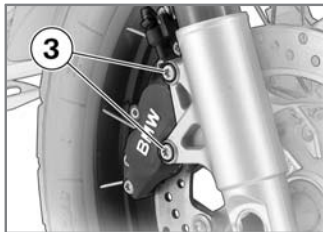
- Insert ABS sensor **2** into its bore and install screw **1**.



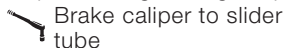
The cable of the ABS sensor could chafe through if it comes into contact with the brake disc. Make sure that the ABS sensor cable is routed correctly.◀

- Clip the ABS sensor cable into clip **10** to make sure it remains correctly routed.◀

- Ease the brake calipers on to the brake discs.



- Install securing screws **3** on left and right and tighten to specified tightening torque.



30 Nm

- Remove the adhesive tape from the wheel rim.

! Braking efficiency is impaired if the brake pads are not correctly bedded against the discs.

Before riding off, always

check that the brakes bite as soon as the brake lever is pulled or the brake pedal depressed.◀

- Firmly pull the handbrake lever several times.
- » The pressure point must be clearly perceptible.

With OE BMW Motorrad Integral ABS (partially integral):

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

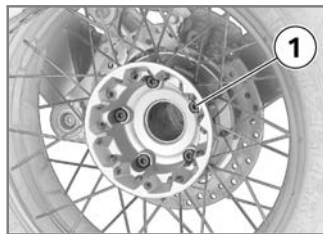
! Braking efficiency is impaired if the brake pads are not correctly bedded against the discs.

Before riding off, always check that the brakes bite as soon as the brake lever is pulled or the brake pedal depressed.◀

- Firmly pull the handbrake lever several times.
- » The pressure point must be clearly perceptible.◀

Removing rear wheel

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



! Parts of the exhaust system can be hot.

Do not touch hot parts of the exhaust system.◀

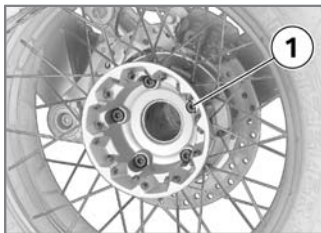
- Remove studs **1** from the rear wheel, holding the wheel as you do so.
- Roll the rear wheel out toward the rear.

Installing rear wheel

 Threaded fasteners not tightened to the specified torque can work loose or their threads can suffer damage.

Always have the security of the fasteners checked by a specialist workshop, preferably an authorised BMW Motorrad dealer. ◀

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



- Install wheel studs **1** and tighten to the specified torque.



Rear wheel to wheel carrier

60 Nm

Tightening sequence: In diagonally opposite sequence

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.

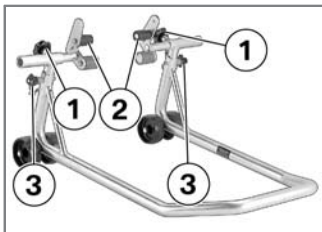


The BMW Motorrad front wheel stand is not designed to support motorcycles not fitted with a centre stand or without other auxiliary stands. A motorcycle resting only on the front wheel stand and the rear wheel can topple.

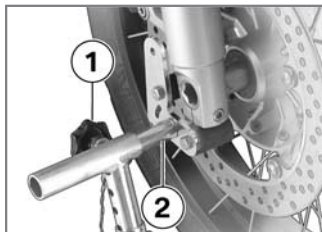
Place the motorcycle on its centre stand or another auxiliary stand before lifting the front wheel with the BMW Motorrad front-wheel stand. ◀

Fitting 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.◀

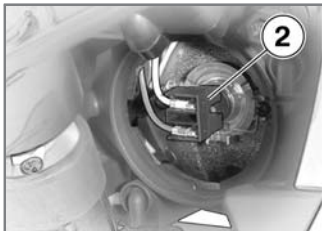
Replacing low-beam headlight bulb

 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.◀

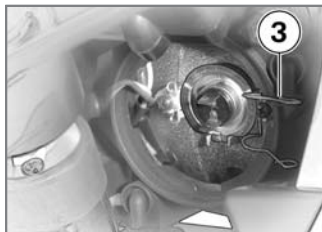
- Make sure the ground is level and firm and place the motorcycle on its stand.
- Switch off the ignition.
- Turn the handlebars all the way to the left.



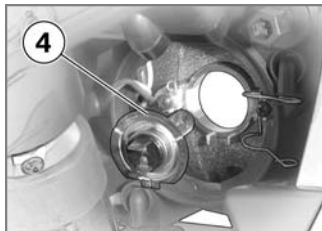
- Remove cover **1** by turning it counter-clockwise.



- Disconnect plug **2**.



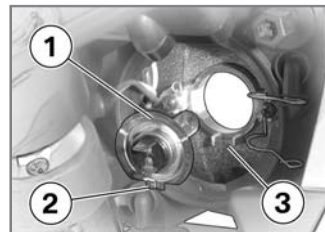
- Release spring clips **3** at top and bottom and swing them aside.



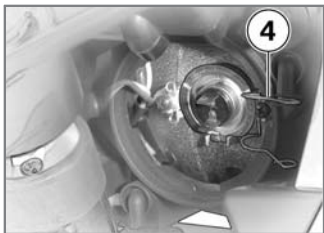
- Remove bulb **4**.
- Replace the defective bulb.

 Low-beam headlight bulb

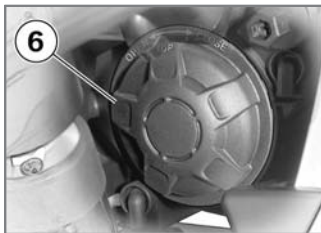
H7 / 12 V / 55 W



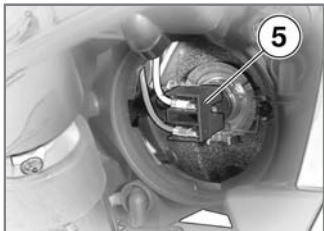
- Install bulb **1** with tab **2** in guide **3**.



- Engage spring clip **4** in the catch.



- Install cover **6**. Make sure that the wording **TOP** is at the top.



- Install plug **5**.

Replacing high-beam headlight bulb

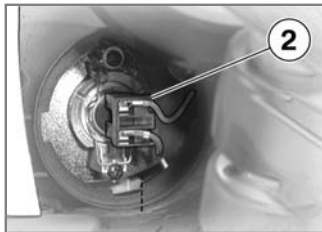
⚠ If it is not standing firmly, the motorcycle could topple in the course of the operations described below. Always make sure that the motorcycle is stable and firmly supported.◀

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

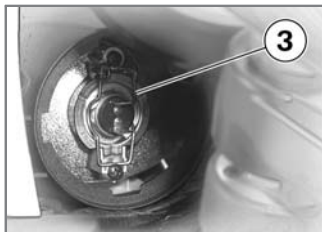
- Switch off the ignition.
- Turn the handlebars all the way to the right.



- Remove cover **1** by turning it counter-clockwise.



- Disconnect plug **2**.



- Release spring clips **3** at top and bottom and swing them aside.

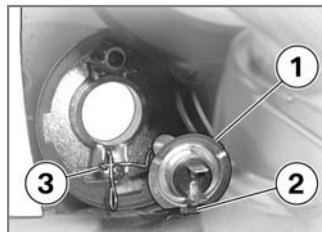


- Remove bulb **4**.
- Replace the defective bulb.

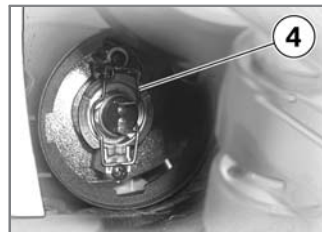


High-beam headlight bulb

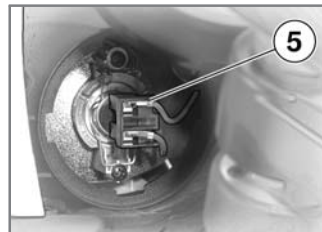
H7 / 12 V / 55 W



- Install bulb **1** with tab **2** in guide **3**.



- Engage spring clip **4** in the catch.



- Install plug **5**.



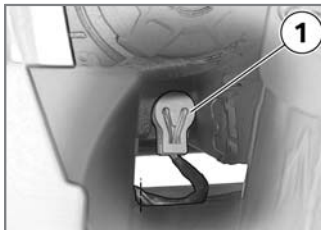
- Install cover **6**. Make sure that the wording **TOP** is at the top.

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.
- Turn the handlebars all the way to the right.



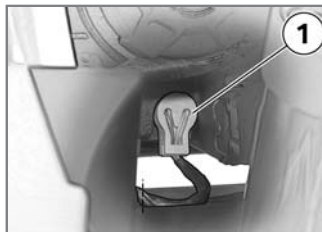
- Pull bulb carrier **1** out of the headlight housing.
- Remove the bulb from the bulb socket.
- Replace the defective bulb.



Parking-light bulb

T8/4 / 12 V / 5 W

- Install the bulb in the bulb socket.



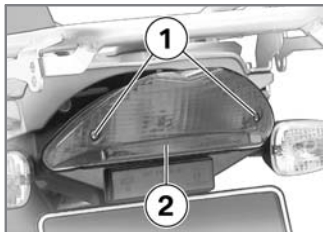
- Install bulb carrier **1** in the headlight housing.

Replacing brake light and rear light bulb

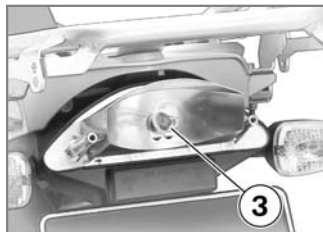
 If it is not standing firmly, the motorcycle could topple in the course of the operations described below. Always make sure that the motorcycle is stable and firmly supported.◀

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

- Switch off the ignition.



- Remove screws **1**.
- Pull bulb housing **2** to the rear until it is clear of the holders.

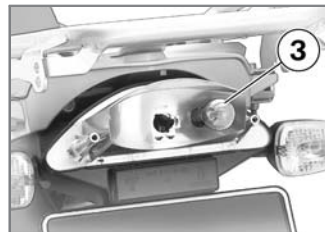


- Press bulb **3** into its socket and turn it counter-clockwise to remove.
- Replace the defective bulb.



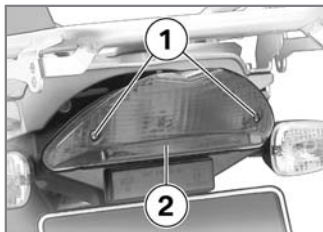
Tail light /brake light bulb

P25-2 / 12 V / 5...21 W



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

▶ There is only one position in which the bulb can be inserted into the socket.◀



- Seat bulb housing **2** in its holders.
- Install screws **1**.

Replacing turn indicator bulbs, front and rear

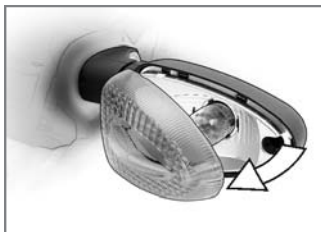


If it is not standing firmly, the motorcycle could topple in the course of the operations described below. Always make sure that the motorcycle is stable and firmly supported. ◀

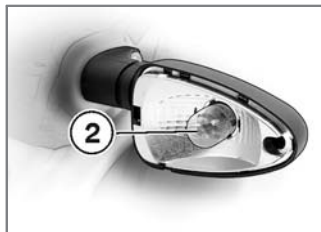
- Make sure the ground is level and firm and place the motorcycle on its stand.



- Remove screw **1**.



- Pull the glass out of the reflector housing at the threaded-fastener side.



- Turn bulb **2** counter-clockwise and remove it from the bulb housing.
- Replace the defective bulb.



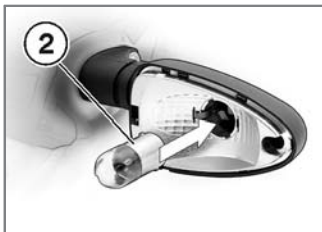
Front flashing turn indicator bulbs

R10W / 12 V / 10 W

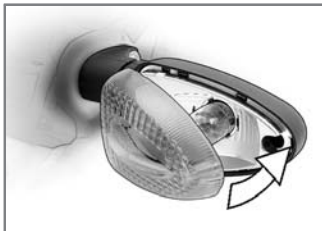


Rear flashing turn indicator bulbs

R10W / 12 V / 10 W



- Turn bulb **2** clockwise to install it in the bulb housing.



- Working from the inboard side, insert the glass into the bulb housing and close the housing.

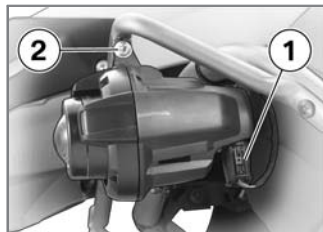


- Install screw **1**.

Replacing auxiliary headlights^{OE}

 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.



- Disconnect plug **1**.
- Slacken screw **2**.
- Pivot the headlight lens forward.



- Remove four screws **3**.

- Push bulb cover **4** down to remove.



- Pull bulb housing **5** down until it is clear of the holder.



- Turn bulb **6** counter-clockwise to remove.

- Replace the defective bulb.
 Auxiliary headlight bulbs

With OE Supplementary headlight:
 H11 / PGJ 19-2 / 12 V / 55 W<1



- Insert bulb **6** into its socket and turn it clockwise to install.

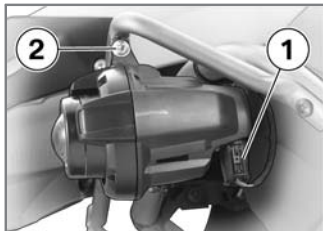


- Push bulb housing **5** up into the holder from below.



- Seat bulb cover **4** from below.
- Install four screws **3**.

- Pivot the headlight lens back.

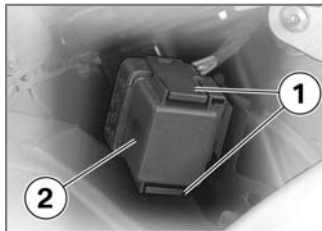


- Tighten screw **2**.
- Connect plug **1**.
- Adjust the headlight so that it does not dazzle oncoming traffic.

Replacing fuses for auxiliary headlights^{OE}

- Make sure the ground is level and firm and place the motorcycle on its centre stand.
- Removing front seat (➡ 54)

- Removing right side panel (➡ 123)



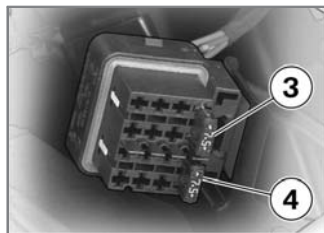
- Squeeze locking clips **1** at top and bottom together and pull fuse cover **2** aside to remove.
- Replace the defective fuse.



Auxiliary headlight fuses

With OE Supplementary headlight:

7.5 A<



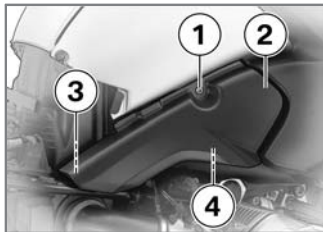
- Replace fuse **3** for left headlight.
- Replace fuse **4** for right headlight.
- Install the fuse cover.
- Installing right side panel (➡ 123)
- Installing front seat (➡ 55)

Air filter

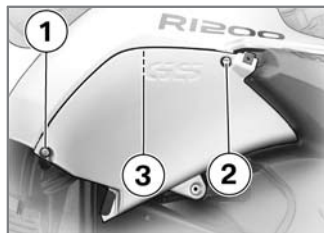
Removing air filter

- Make sure the ground is level and firm and place the motorcycle on its centre stand.
- Removing front seat (➡ 54)

- Removing right side panel
(➡ 123)

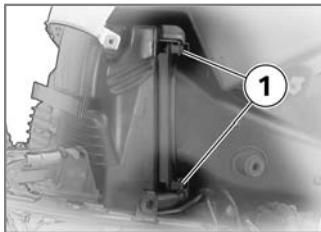


- Remove screw **1**.
- Pull side cover **2** out of holders **3** and **4**.

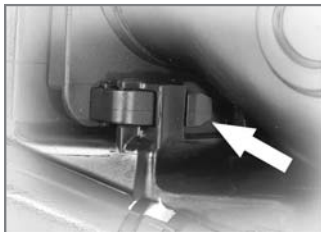


- Remove screws **1** and **2**.

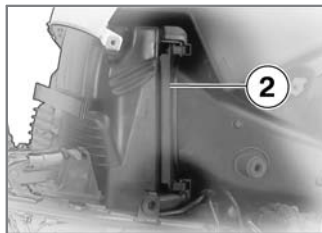
- Pull the knee cover out of holder **3**.



- Disengage retaining clip **1**.



- To do so, press the rear of the clip and pull out the clip.



- Pull the intake air pipe out of holder **2**.

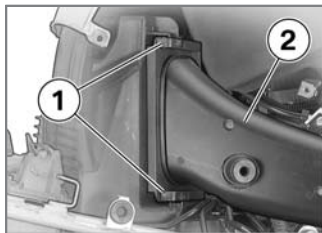


- Pull out air filter **3** at the bottom.

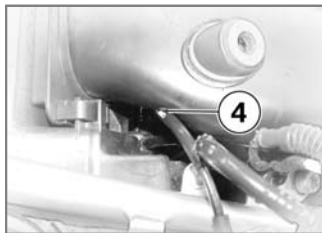
Installing air filter



- Insert air filter **3** into the air filter housing at the top.
- Push the air filter into the air filter housing at the bottom, making sure that the vanes are not bent.

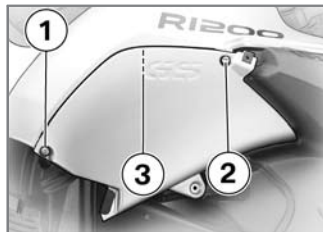


- Position intake air pipe **2** on the air filter housing.
- Push retaining clips **1** into the holders until they engage with an audible click.

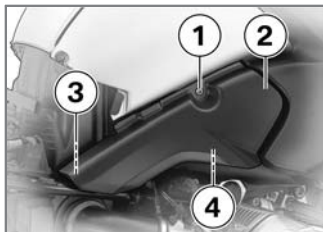


- Check that the throttle-valve cable is seated in guide **4**

of the intake and that the throttle valve is seated against the stop.



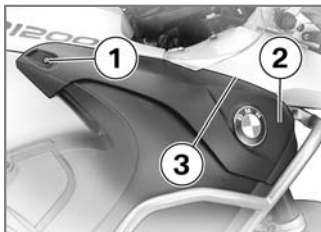
- Seat the knee cover in holder **3**.
- Install screws **2** and **1**.



- Seat side panel **2** in holders **3** and **4**.
- Install screw **1**.
- Installing right side panel (➡ 123)
- Installing front seat (➡ 55)

Removing right side panel

- Make sure the ground is level and firm and place the motorcycle on its centre stand.
- Removing front seat (➡ 54)

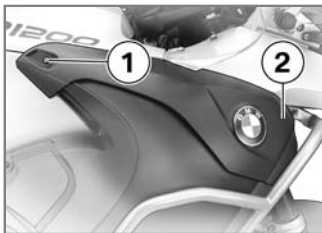


- Remove screw **1**.
- Remove screw **2** on the in-board side.
- Pull the side panel out of holder **3**.

Installing right side panel

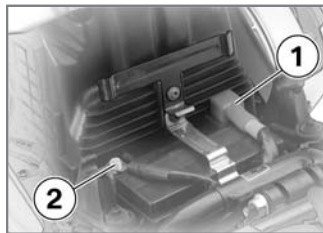


- Apply rubber care product to holder **3** and seat the side panel in the holder.



- Install screw **2** on the in-board side.
- Install screw **1**.
- Installing front seat (➡ 55)

Jump starting



- When jump-starting the engine, do not disconnect the battery from the on-board electrical system.
- Remove protective cap **1** from the battery's positive terminal.
- 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 negative terminal **2** of the donor battery, and the other end to the negative terminal of the discharged battery.

▶ The spring-strut screw can be used as an alternative to the battery's negative terminal.◀

- Run the engine of the donor vehicle during jump-starting.
- 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.
- Remember to reinstall the protective cap on the battery's positive terminal.

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

Battery

Maintenance instructions

Correct upkeep, recharging and storage will prolong the life of the battery and are essential if warranty claims are to be considered.

Compliance with the points below is important in order to maximise battery life:

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



If the battery is not disconnected, the on-board electronics (e.g. clock, etc.) gradually drain the battery. This can cause the battery to run flat. If this happens, warranty claims will not be accepted.

If the motorcycle is to be out of use for more than four weeks, disconnect the battery or connect a suitable trickle charger to the battery.◀



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

Charging battery when connected



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



If you switch on the ignition and the multifunction display and telltale lights fail to light up, the battery is completely flat. Attempting to charge a completely flat battery via the on-board socket can cause damage to the motorcycle's electronics.

If a battery has discharged to the extent that it is completely flat, it has to be disconnected from the on-board circuits and charged with the charger connected directly to the battery posts.◀



Only chargers suitable for this mode of charging can be used to recharge the battery via the on-board socket. Unsuitable chargers could cause damage to the motorcycle's on-board electrics. Use BMW chargers with the part numbers 71 60 7 688 864 (220 V) or, as

applicable, 71 60 7 688 865 (110 V). If you are in doubt, disconnect the battery from the on-board systems and connect the charger directly to the battery.◀

- Charge via the power socket, with the battery 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.◀

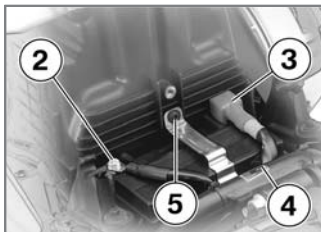
Removing battery

⚠ 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.
- Removing front seat (➡ 54)



- Remove holder **1** for Rider's Manual.



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

- Disconnect negative battery lead **2** first.
- Open protective cap **3** for the battery's positive terminal.
- Then disconnect positive battery lead **4**.
- Remove screw **5** of the battery retaining strap.

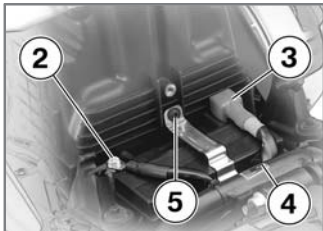
- Disengage the retaining strap at the bottom and remove.
- Lift the battery up and out; work it slightly back and forth if it is difficult to remove.

Installing battery

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

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

- Engage the battery retaining strap at the bottom and push it over the battery.



- Install screw **5** of the battery retaining strap.



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

Never install the battery without the protective cap.◀

- Connect battery positive lead **4** first.

- Close protective cap **3** for the battery's positive terminal.
- Connect battery negative lead **2**.



- Install holder **1** for Rider's Manual.
- Switch on the ignition.
- Fully open the throttle once or twice.
 - » The engine management system registers the throttle-valve positions.
- Installing front seat (➡ 55)
- Set the clock (➡ 41)

Care

Care products	130
Washing motorcycle	130
Cleaning easily damaged components	131
Paint care	132
Protective wax coating	132
Laying up the motorcycle	132
Restoring motorcycle to use	133

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.

Aluminium parts

Clean aluminium parts with a suitable cleaning agent; these cleaning agents, too, are available from your authorised BMW Motorrad dealer. Use plenty of water and BMW shampoo to clean aluminium parts exposed to road salt.

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.

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Troubleshooting chart

Engine does not start 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 (➡ 64).
Gear engaged and clutch not disengaged.	Select neutral or pull clutch lever(➡ 64).
Clutch pulled when ignition was OFF	Switch on the ignition, then pull the clutch lever.
No fuel in tank.	Refuelling (➡ 71)
Battery not adequately charged.	Charge the battery when connected (➡ 125)

Threaded fasteners

Front wheel	Value	Valid
Brake caliper to slider tube		
M8 x 32 10.9	30 Nm	
Quick-release axle clamp screws		
M8 x 35	19 Nm	
Quick-release axle in axle holder		
M24 x 1.5	50 Nm	
Rear wheel	Value	Valid
Rear wheel to wheel carrier		
M10 x 53 x 1.25	In diagonally opposite sequence	
	60 Nm	
Shift lever	Value	Valid
Peg to gearshift lever		
ISA M6 x 16	8 Nm	

Engine

Type	
Engine, type	Four-stroke opposed twin, air-cooled with oil-cooled exhaust ports, installed longitudinally, two overhead camshafts, electronic engine management
Technical data	
Effective displacement	1170 cm ³
Cylinder bore	101 mm
Piston stroke	73 mm
Compression ratio	11.0 : 1
Nominal output	74 kW, At: 7000 min ⁻¹
With OE Power reduction:	72 kW, At: 7000 min ⁻¹
Max. torque	115 Nm, At: 5500 min ⁻¹
With OE Power reduction:	115 Nm, At: 5500 min ⁻¹
Maximum permissible engine speed	7800 min ⁻¹
Idle speed	1150±50 min ⁻¹

Fuel

Recommended fuel grade	Super unleaded 95 ROZ/RON
Fuel grade, usable with power- and consumption-related restrictions	Regular, unleaded 91 ROZ/RON
Usable fuel capacity	33 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

Speeds	
Top speed	>200 km/h

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

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	2.82 : 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	210 mm, At wheel
Rear suspension, type	Central spring strut with single-tube gas-filled shock absorber, adjustable rebound damping and hydraulically adjustable spring pre-load
Rear suspension, total suspension travel	220 mm, At wheel

Brakes

Front brake

Front brake, type	Hydraulically operated twin disc brake with 4-piston fixed calipers and floating brake discs
Friction material, front brake pads	Sintered metal

Rear brake

Rear brake, type	Hydraulically operated disc brake with 2-piston floating caliper and fixed disc
Friction material, rear brake pads	Organic material

Wheels and tyres

Front wheel, type	Cross-spoked wheel with 40 spokes, MT H2
Front wheel, rim size	2,50" x 19"
Front wheel, tyre designation	110/80 R 19 M/C 59 V TL
Rear wheel, type	Cross-spoked wheel with 40 spokes, MT H2
Rear wheel, rim size	4,00" x 17"
Rear wheel, tyre designation	150/70 R 17 M/C 69 V TL

Tyre pressures	
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 + 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 + luggage	2.9 bar, Tyre cold

Electrics

Ratings (Per on-board socket)	5 A
Fuses	The 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.
Auxiliary headlight fuses	
With OE Supplementary headlight:	7.5 A

Battery

Battery, type	AGM (Absorptive Glass Mat) battery
Battery rated voltage	12 V
Battery rated capacity	14 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	H7 / 12 V / 55 W
Low-beam headlight bulb	H7 / 12 V / 55 W
Parking-light bulb	T8/4 / 12 V / 5 W
Tail light /brake light bulb	P25-2 / 12 V / 5...21 W
Front flashing turn indicator bulbs	R10W / 12 V / 10 W
Rear flashing turn indicator bulbs	R10W / 12 V / 10 W
Auxiliary headlight bulbs	
With OE Supplementary headlight:	H11 / PGJ 19-2 / 12 V / 55 W

Frame

Frame, type	Two-part tubular-steel frame and load-bearing drive unit
Type plate, location	On left side behind side cover
Vehicle identification number (VIN), location	Frame front section, top centre

Dimensions

Overall length	2190 mm
Maximum width	955 mm, Across mirrors
With OA Case:	991 mm, Across cases
Maximum height	1470 mm, DIN unladen weight; without mirrors, windscreen lowered
Front-seat height (At unladen weight)	910 mm, High position
	890 mm, Low position

Weights

Unladen weight	256 kg, DIN unladen weight, ready for road 90 % load of fuel, without optional extras
Permissible gross weight	475 kg
Maximum payload	219 kg, Without optional extras/optional accessories

Service

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BMW Motorrad service

Advanced technology requires specially adapted methods of maintenance and repair.



If maintenance and repair work is performed inexpertly, it could result in consequential damage and thus constitute a safety risk.

BMW Motorrad recommends you to have all the associated work on your motorcycle carried out by a specialist workshop, preferably an authorised BMW Motorrad dealer. ◀

Your authorised BMW Motorrad dealer can provide information on the specified Service, Inspection and Annual Inspection work needed. Have all maintenance and repair work carried out

confirmed in the "Service" chapter in this manual. Authorised BMW Motorrad dealers are supplied with the latest technical information and have the necessary technical know-how. BMW Motorrad recommends that you contact your authorised BMW Motorrad dealer if you have questions regarding your motorcycle.

BMW Motorrad service quality

Along with its reputation for engineering quality and high reliability, BMW Motorrad is a byword for excellent quality of service.

To ensure that your BMW is always in optimum condition, 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]

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Details described or illustrated in this booklet may differ from the motorcycle's actual specification as purchased, the accessories fitted or the national-market specification. No claims will be entertained as a result of such discrepancies.

Dimensions, weights, fuel consumption and performance data are quoted to the customary tolerances.

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

Errors and omissions excepted.

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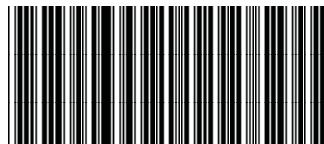
Important data for refuelling.

Fuel	
Recommended fuel grade	Super unleaded 95 ROZ/RON
Usable fuel capacity	33 l
Reserve fuel	4 l
Tyre pressures	
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 + 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 + luggage	2.9 bar, Tyre cold

BMW recommends 

Order No. 01 41 7 699 301

01.2006, 1st edition



Applies to: Motorcycles with hand protectors^{OA}

Possibility of malfunction due to incorrectly positioned hand protector

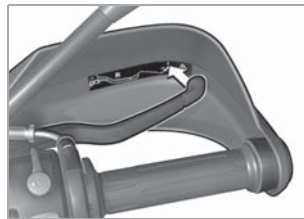
If the hand protector is twisted out of position relative to the handlebar lever to the extent that the two come into contact, there is a possibility of the handlebar lever remaining continuously in the partly operated position. This in turn can cause problems with the clutch or brake function, depending on which lever is affected.

Possible causes can be:

- Crash or fall
- Lack of due care when transporting the motorcycle
- Threaded fasteners working loose

- Impermissible ergonomic settings (see Rider's Manual, "Adjusting clutch lever/ handlebar lever" or, as applicable, "Adjusting brake lever/handlebar lever").
- Before riding off, always check that there is nothing to impede the movement of the clutch lever and the handbrake lever.

Checking freedom of movement of handlebar levers



The movement of the handlebar levers is not impeded if

- you can insert a finger into the gap between the handlebar lever and the hand protector,

or

- the handlebar lever is easily pushed forward from its normal released position.

Aligning hand protector



- Push the handlebar lever fully forward. Turn the hand protector until the tip of the handlebar lever touches the cross on the label.
- Have the settings and the threaded-fastener tightening torques checked by a specialist workshop, preferably an authorised BMW Motorrad dealer.