BMW Motorrad

The Ultimate Riding Machine

Rider's Manual
F 800 GT

Vehicle data/dealership details

Vehicle 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 vehicle from BMW Motorrad and welcome you to the community of BMW riders. Familiarise yourself with your new vehicle so that you can ride it safely and confidently in all traffic situations.

About this Rider's Manual

Please read this Rider's Manual carefully before starting to use your new BMW. 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 vehicle's reliability and safety, as well as its value.

Suggestions and criticism

If you have questions concerning your motorcycle, your authorised BMW Motorrad dealer will gladly provide advice and assistance.

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

BMW Motorrad.

Table of Contents

Overview

An important aspect of this Rider's Manual is that it can be used for quick and easy reference. Consulting the extensive index at the end of this Rider's Manual is the fastest way to find information on a particular topic or item. Chapter 2 will provide you with an initial overview of your motorcycle. All the necessary maintenance and servicing work on the motorcycle is documented in Chapter 12. This record of the maintenance work you have had performed on your motorcycle is a precondition for generous treatment of goodwill claims.
When the time comes to sell your BMW please remember to hand over this Rider's Manual; it is an important part of the motorcycle.

Abbreviations and symbols

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

 Technical data.

OE Optional extras.
The vehicles are assembled complete with all the BMW Motorrad optional extras originally ordered.

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

EWS Electronic immobiliser.

DWA Anti-theft alarm (Diebstahlwarnanlage).

ABS Anti-lock brake system.

ASC Automatic Stability Control.

ESA Electronic Suspension Adjustment.

RDC Tyre pressure monitoring.

Equipment

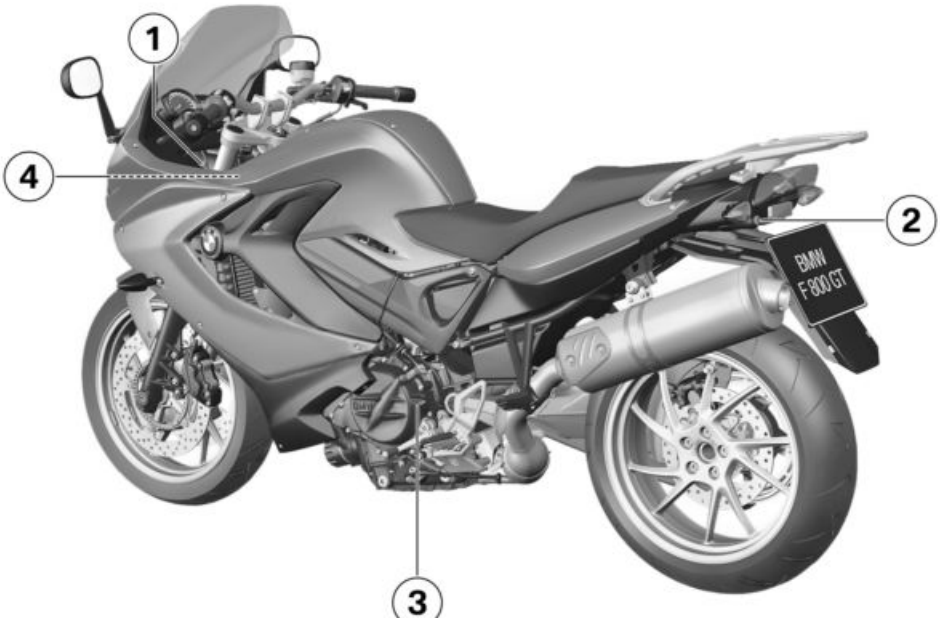
When you ordered your BMW motorcycle, you chose various items of custom equipment. This Rider's Manual describes optional extras (OE) offered by BMW and selected optional accessories (OA). This explains why the manual may also contain descriptions of equipment which you have not ordered. Please note, too, that your motorcycle might not be exactly as illustrated in this manual on account of country-specific differences. If your motorcycle contains equipment that has not been described, its description can be found in a separate manual.

Technical data

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

Currency

The high safety and quality standards of BMW motorcycles are maintained by constant development work on designs, equipment and accessories. Because of this, your motorcycle may differ from the information supplied in the Rider's Manual. Nor can 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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2
3
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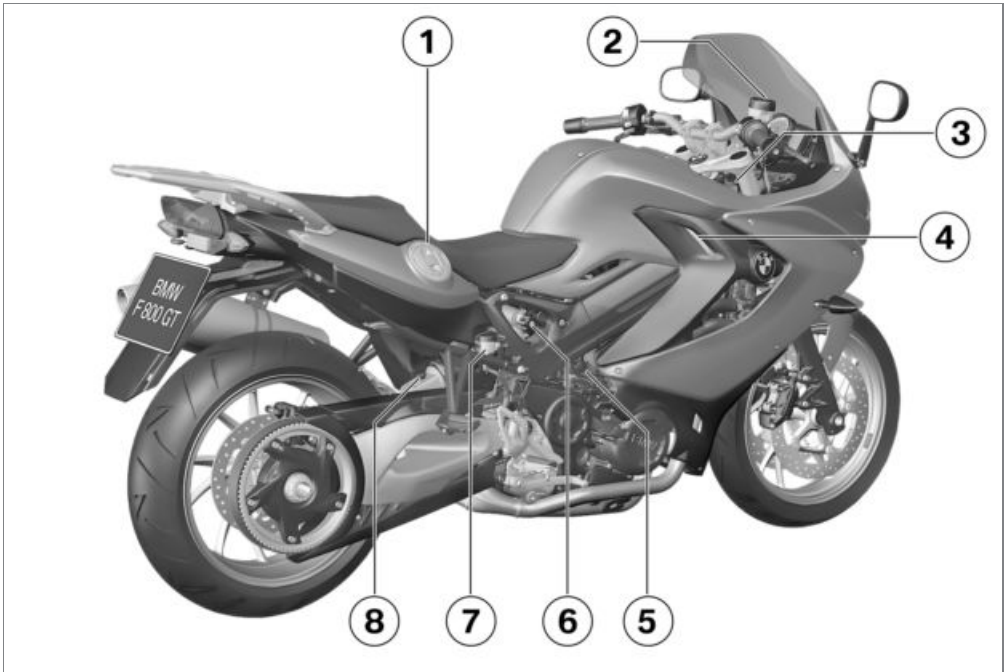
BMW
F 800 GT

General view, left side

1 Adjuster for headlight beam throw (underneath the instrument cluster) (➠ 47)
2 Seat lock (➠ 47)
3 Engine-oil filler neck and oil dipstick (➠ 76)
4 Payload table (on left on steering-head bearing)


1
2
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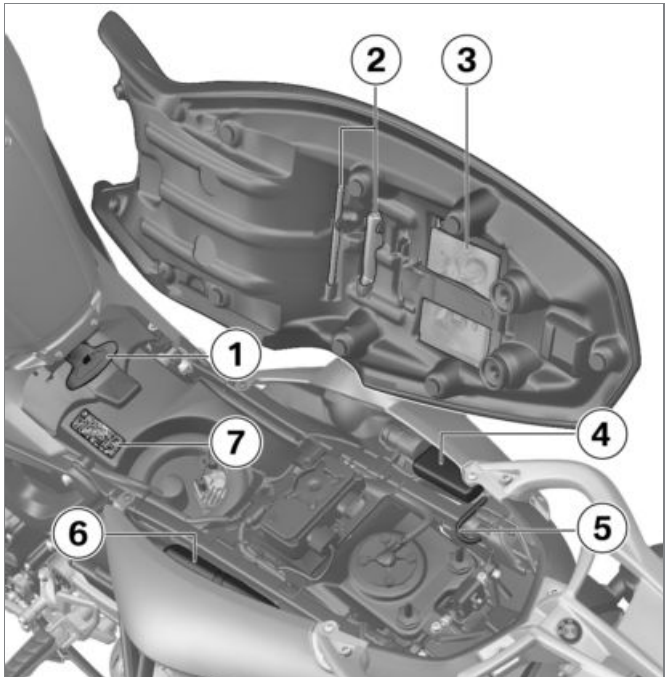
BMW
F 800 GT

General view, right side

1 Tank filler cap (➠ 67)
2 Brake-fluid reservoir, front (➠ 80)
3 VIN, type plate (on steering-head bearing)
4 Coolant level indicator (behind side panel) (➠ 82)
5 Power socket (➠ 103)
6 Adjuster, spring preload (➠ 43)
7 Brake-fluid reservoir, rear (➠ 81)
8 Adjuster for damping characteristic (➠ 44)

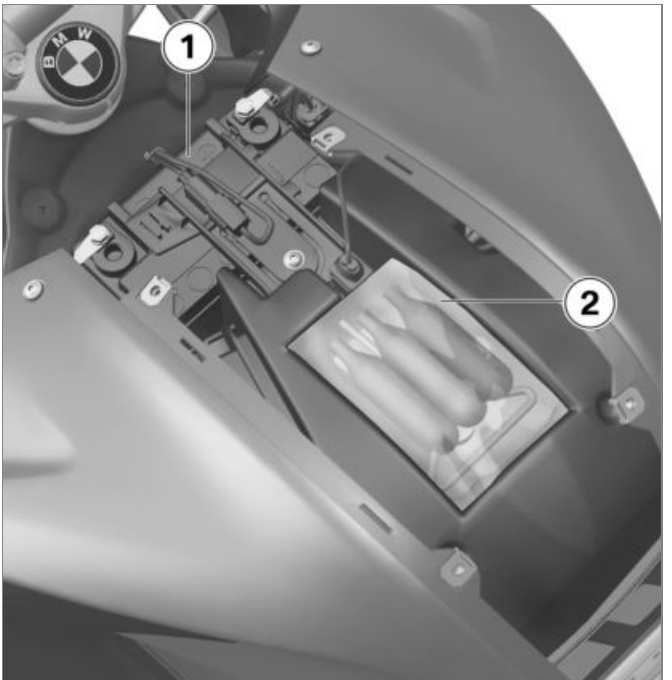


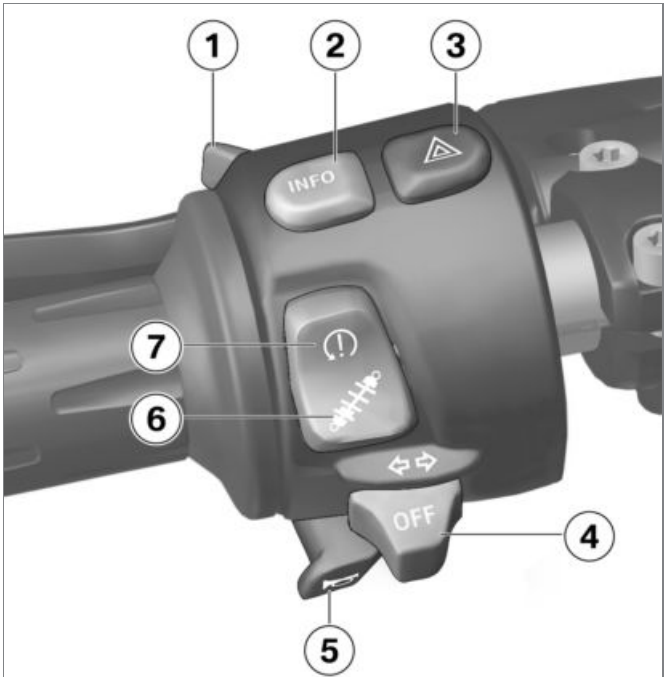
Underneath the seat

1 Tool for adjusting spring preload (➠ 43)
2 Standard tool kit (➠ 75)
3 Rider's Manual
4 Stowage
– with first-aid kit[OA]
Location of the first-aid kit
5 Helmet holder (➠ 48)
6 Stowage
– with service toolkit[OA]
Location of the service toolkit (➠ 75)
7 Table of tyre pressures

Underneath the centre trim panel

1 Battery (➠ 99)
2 Stowage
– with tyre repair kit OA
Location of the tyre repair kit





Multifunction switch, left

1 High-beam headlight and headlight flasher (➠ 38)

2 Change of status indicators on the display (➠ 34)

3 Hazard warning flashers (➠ 39)

4 Turn indicators (➠ 38)

5 Horn

6 No standard equipment
– with Electronic Suspension Adjustment (ESA)[OE]
ESA (➠ 45)

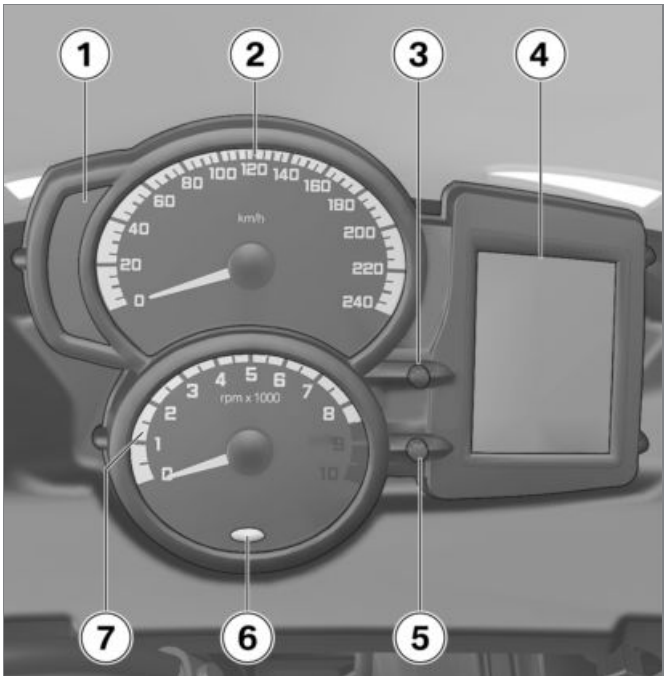
7 No standard equipment
– with Automatic Stability Control (ASC)[OE]
ASC (➠ 40)

Multifunction switch, right

1 Starter (➠ 61)

2 Emergency off switch (kill switch) (➠ 39)

3 No standard equipment
– with heated handlebar grips[OE]
Operate the heated handlebar grips (➠ 40).

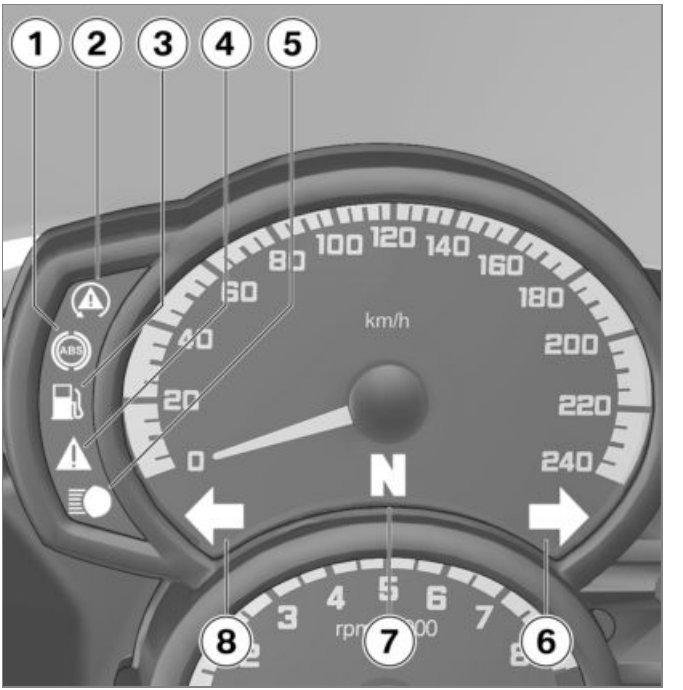


Instrument panel

1 Warning and telltale lights (➠ 16)
2 Speedometer
3 Function key
4 Multifunction display (➠ 17)
5 Function key
6 Ambient-light brightness sensor (for controlling the brightness of the instrument lighting)
– with anti-theft alarm OE
Anti-theft alarm telltale light (see the instructions for use for the anti-theft alarm)
– with on-board computer OE
Redline warning (➠ 64)
7 Rev. counter

Warning and telltale lights

1 ABS (➠ 26)
2 No series production
– with Automatic Stability Control (ASC)[OE]
ASC (➠ 27)
3 Fuel reserve (➠ 28) (➠ 26)
4 General warning light (in combination with warnings in the display) (➠ 18)
5 High-beam headlight
6 Flashing turn indicators, right
7 Idle
8 Flashing turn indicators, left



Multifunction display

1 Warning for engine electronics (➠ 23)

2 No series production
– with heated handlebar grips OE
Display showing chosen grip heating level (➠ 40)

3 No series production
– with on-board computer OE
Stopwatch (➠ 36)

4 Time (➠ 33)

5 No series production
– with tyre pressure monitoring (RDC) OE
Tyre pressure (➠ 30)

6 Warning for coolant temperature (➠ 22)

7 Serviceability (➠ 29)

8 Values area for status indicators (➠ 34)

9 No series production – with on-board computer[OE]
Symbols explaining the readings shown in the values area (➠ 28)

10 Coolant temperature display

11 No series production – with on-board computer[OE]
Gear indicator; "N" indicates neutral

12 Fuel level (➠ 28)

13 No series production – with on-board computer[OE]
Values area for status indicator (➠ 34)

14 Warning symbol (➠ 18)

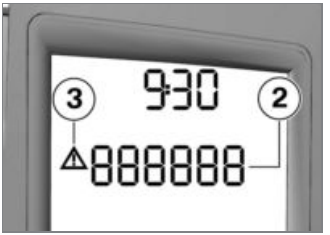
15 Trip meter (➠ 34)

Warnings

Mode of presentation

Warnings are indicated by the corresponding warning lights.

Warnings that do not have warning lights of their own are indicated by 'general' warning light **1** showing in combination with a text warning or a warning symbol in the multifunction display. The 'general' warning light shows yellow or red, depending on the urgency of the warning.



In addition, the warning triangle **3** can also be displayed next to the values area **2**. These warnings appear in alternation with the odometer readings (➠ 34).

The status of the 'General' warning light matches the most urgent warning.

An overview of the possible warnings is listed on the next page.

Warnings, overview

Warning and telltale lights	Warning symbols in the display	Meaning
	"x.x °C" flashes	Outside temperature warning (➠ 22)
lights up yellow	 + "EWS" appears on the display	Electronic immobiliser active (➠ 22)
lights up red	 flashes	Coolant temperature too high (➠ 22)
lights up yellow	 appears on the display	Engine in emergency-operation mode (➠ 23)
lights up yellow	 + "LAMP" appears on the display	Bulb defective (➠ 23)
lights up yellow	 + "DWA" appears on the display	DWA battery flat (➠ 23)
lights up yellow	 + "x.x" flashes	Tyre pressure close to limit of permitted tolerance (➠ 24)
flashes red	 + "x.x" flashes	Tyre pressure outside permitted tolerance (➠ 24)

Warning and telltale lights	Warning symbols in the display	Meaning
 lights up yellow	 + "−−" or "−− −−" appears on the display	Sensor defective or system error (➠ 25)
 lights up yellow	 + "RdC" appears on the display.	Battery of tyre-pressure sensor weak (➠ 25)
	 + "−−" or "−− −−" appears on the display	Signal transmission disrupted (➠ 25)
 lights up		Fuel down to reserve (➠ 26)
 Flashes		ABS self-diagnosis not completed (➠ 26)
 Lights up		ABS fault (➠ 27)
 Quick-flashes		ASC intervention (➠ 27)
 Slow-flashes		ASC self-diagnosis not completed (➠ 27)

Warning and telltale lights	Warning symbols in the display	Meaning
 Lights up		ASC switched off (➠ 27)
 Lights up		ASC fault (➠ 27)

Outside temperature warning

– with on-board computer OE

"x.x °C" flashes.
Possible cause:

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

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

- Ride carefully and think well ahead.

Electronic immobiliser active

General warning light shows yellow.

+ "EWS" appears on the display.

Possible cause:

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.

Coolant temperature too high

General warning light shows red.

The temperature symbol flashes.

Riding when the engine is overheated could result in engine damage.
Compliance with the information set out below is essential.◀

Possible cause:

If the coolant level is too low.

- Checking coolant level (➠ 82).

If the coolant level is too low:

- Top up the coolant and have the coolant system checked by a specialist workshop, preferably by an authorised BMW Motorrad dealer.

Possible cause:

The coolant temperature is too high.

- If possible, ride in the part-load range to cool down the engine.
- If the coolant temperature is often too high, have the cooling system checked by a special-

ist workshop as soon as possible, preferably an authorised BMW Motorrad dealer.

Engine in emergency-operation mode

General warning light shows yellow.

Engine symbol appears on the display.

The engine is running in emergency operating mode. Unusual engine response is a possibility.
Adapt your style of riding accordingly. Avoid accelerating sharply and overtaking.◀

Possible cause:

The engine 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 performance might not be available.
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Bulb defective

General warning light shows yellow.

+ "LAMP" appears on the display.

A bulb failure on the motorcycle is a safety risk, because it is easy for other road users to overlook the vehicle. Replace defective bulbs as soon as possible; always carry a complete set of spare bulbs if possible.◀

Possible cause:

Bulb defective.

- Visually inspect to ascertain which bulb is defective.
- Replacing low-beam and/ or high-beam headlight bulb (➠ 92).
- Replacing bulb for parking light (➠ 93).
- Replacing the brake light and rear light bulbs (➠ 95).
- Remove turn indicator bulbs, front and rear (➠ 96).

DWA battery flat

– with anti-theft alarm OE

General warning light shows yellow.

+ "DWA" appears on the display.

This error message shows briefly only after the Pre-Ride-Check completes.◀

Possible cause:

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 vehicle's battery is disconnected.

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

Tyre pressure close to limit of permitted tolerance

– with tyre pressure monitoring (RDC) OE

General warning light shows yellow.

+ "x.x" (critical tyre pressure) flashes.

Possible cause:

Measured tyre pressure is close to the limit of permitted tolerance.

- Correct the tyre pressure as stated on the inside cover of the Rider's Manual.

Before you adjust tyre pressure, read the information on temperature compensation and adjusting pressure in the section entitled "Engineering details".◀

Tyre pressure outside permitted tolerance

– with tyre pressure monitoring (RDC) OE

General warning light flashes red.

+ "x.x" (critical tyre pressure) flashes.

Out-of-tolerance tyre pressures impair the motorcycle's handling characteristics. Adapt your style of riding accordingly.◀

Possible cause:

Measured tyre pressure is outside permitted tolerance.

- Check the tyre for damage and to ascertain whether the vehicle can be ridden with the tyre in its present condition.

If the vehicle can be ridden with the tyre in its present condition:

- Correct the tyre pressure at the earliest possible opportunity.
- Have the tyre checked for damage by a specialist workshop, preferably an authorised BMW Motorrad dealer.

If you are unsure whether the vehicle can be ridden with the tyre in its present condition:

- Do not continue your journey.

- Notify the breakdown service.
- Have the tyre checked for damage by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Sensor defective or system error

– with tyre pressure monitoring (RDC)[OE]


General warning light shows yellow.


+ "−−" or "−− −−" appears on the display.

Possible cause:

Motorcycle is fitted with wheels not equipped with RDC sensors.

- Fit wheels and tyres equipped with RDC sensors.

Possible cause:

1 or 2 RDC sensors have failed.

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

Possible cause:

A system error has occurred.

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

Battery of tyre-pressure sensor weak

– with tyre pressure monitoring (RDC)[OE]


General warning light shows yellow.


+ "RdC" appears on the display.

This error message shows briefly only after the Pre-Ride-Check completes.◀

Possible cause:

The tyre-pressure battery is almost at full capacity. There is no assurance of how long the tyre pressure control system can remain operational.

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

Signal transmission disrupted

– with tyre pressure monitoring (RDC)[OE]


+ "−−" or "−− −−" appears on the display.

Possible cause:

The vehicle has not yet accelerated past the threshold of approximately 30 km/h. The RDC sensors do not start transmitting

signals until the motorcycle reaches a speed above this threshold (➠ 73).

- Increase speed above this threshold and observe the RDC readings. Assume that a permanent fault has not occurred unless the 'General' warning light comes on to accompany the symptoms. Under these circumstances:
- Have the fault rectified by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Possible cause:

Wireless communication with the RDC sensors has been disrupted. Possible causes include radio-communication systems operating in the vicinity and interfering with the link between the RDC control unit and the sensors.

- Move to another location and observe the RDC readings. Assume that a permanent fault has not occurred unless the 'General' warning light comes on to accompany the symptoms. Under these circumstances:
- Have the fault rectified by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Fuel down to reserve

Warning light for fuel down to reserve shows.

Lack of fuel can cause the engine to run irregularly or die (risk of accident) and result in damage to the catalytic converter.

Do not run the fuel tank dry.◀

Possible cause:

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

	Reserve fuel
approx. 4 l	

- Refuelling (➠ 67).

ABS self-diagnosis not completed

ABS warning light flashes.

Possible cause:

The ABS function is not available, because self-diagnosis did not complete. The motorcycle has to move forward a few metres for the wheel sensors to be tested.

- Pull away slowly. Bear in mind that the ABS function is not available until self-diagnosis has completed.

ABS fault


ABS warning light flashes.

Possible cause:

The ABS control unit has detected a fault.

- You can continue to ride. Bear in mind that the ABS function is not available. Bear in mind the more detailed information on certain situations that can lead to ABS fault messages (➠ 71).
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad dealer.

ASC intervention

– with Automatic Stability Control (ASC)[OE]


ASC warning light quick-flashes.

The ASC has detected a degree of instability at the rear wheel and has intervened to reduce torque. The warning light flashes for longer than ASC intervention lasts. This affords the rider visual feedback on control intervention even after the critical situation has been dealt with.

ASC self-diagnosis not completed

– with Automatic Stability Control (ASC)[OE]


ASC warning light slow-flashes.

Possible cause:

Self-diagnosis did not complete, so the ASC function is not available. The engine must be running and the motorcycle must reach a speed of at least 5 km/h in order for ASC self-diagnosis to complete.

- Pull away slowly. Bear in mind that the ASC function is not available until self-diagnosis has completed.

ASC switched off

– with Automatic Stability Control (ASC)[OE]


ASC warning light flashes.

Possible cause:

The rider has switched off the ASC system.

- Switch on ASC.

ASC fault

– with Automatic Stability Control (ASC)[OE]


ASC warning light flashes.

Possible cause:
The ASC control unit has detected a fault.
- You can continue to ride. Bear in mind that the ASC function is not available. Bear in mind the more detailed information on certain situations that can lead to ASC fault messages (➠ 72).
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad dealer.

On-board computer display

– with on-board computer OE

Distance travelled after fuel down to reserve (➠ 28)

Average consumption

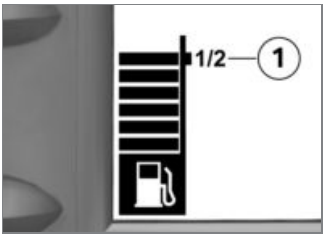
Average speed

Current consumption

Ambient temperature (➠ 30)

Fuel level

Due to the complex shape of the fuel tank, it is impossible to determine the fuel level when the tank is approaching capacity. For this reason, the fill-level indicator only displays the bottom half of the filling capacity in detail.



If the fill-level indicator reaches the 1/2-mark **1**, the fuel tank is half-full. From then on, the fill-level will be displayed more accurately.
If the fuel reserve is reached, the fuel warning light will come on.

Fuel reserve

The quantity of fuel in the fuel tank after the fuel warning light comes on is dependent on the driving dynamics: the more the fuel moves inside the tank (due to regularly changing heel angles, frequent braking and acceleration), the more difficult it be-

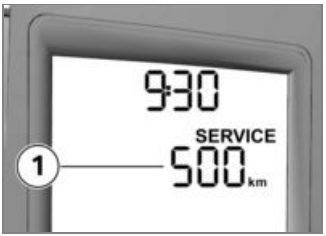
comes to determine the reserve volume. However, the tank will at least contain the fuel reserve volume indicated on the back cover.

– with on-board computer[OE]

After the fuel warning light comes on, the distance that has travelled since this time is displayed.
The distance that can still be travelled using the reserve volume depends on the style of driving (usage) and the amount of fuel remaining at the time the light came on (see explanation above).
The odometer for the fuel reserve is reset when the amount of fuel after refuelling is greater than the reserve volume.

Service-due indicator

If the next service is due in less than one month, the date for the next service **1** is shown briefly after the Pre-Ride Check completes. The month and year are displayed with two and four digits respectively, separated by a colon. In this example, the reading means "June 2014".



If the vehicle covers long distances in the course of the year, under certain circumstances it might be necessary to have it serviced at a date in advance of the forecast due date. If the countdown distance to the early service is less than 1000 km, the countdown distance **1** appears on the display in steps of 100 km. It is shown briefly after the Pre-Ride-Check completes.

If service is overdue, the due date or the odometer reading at which service was due is accompanied by the 'gener-

al' warning light showing yellow. The word "Service" remains permanently visible.

If the service-due indicator appears more than a month before the service date, the date saved in the instrument cluster must be adjusted. This situation can occur if the battery was disconnected for a prolonged period of time.

If you want to have the date set consult a specialist workshop, preferably an authorised BMW Motorrad dealer.◀

Ambient temperature

– with on-board computer OE

If the outside temperature drops below 3 °C the temperature display flashes to draw your attention to the risk of black ice forming. The display automatically switches from any other mode to the temperature reading when the temperature drops below this threshold for the first time.

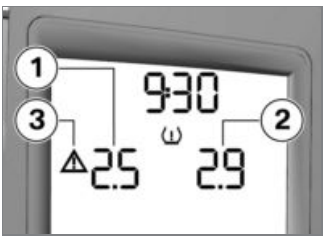
When the motorcycle is at a standstill the heat of the engine can falsify the ambient-temperature reading. If the effect of the engine's heat becomes excessive, "––" temporarily appears on the display.

The ambient temperature warning does not mean that there is no risk of ice forming at measured temperatures above 3 °C.

Always take extra care when temperatures are low; remember that the danger of black ice forming is particularly high on bridges and where the road is in shade.◀

Tyre pressure

– with tyre pressure monitoring (RDC) OE



The front tyre pressure is on the left **1**; the reading on the right **2** is the rear tyre pressure. Immediately after the ignition is switched on "–– ––" is displayed. The tyre-pressure values will only be transmitted after exceeding a speed of 30 km/h.

The tyre-pressure readings are based on a tyre air temperature of 20 °C.

If warning triangle **3** also shows, the reading is a warning. The affected pressure flashes.
If the affected value is close to the limit of the permissible tolerance range, the 'General' warning light shows yellow. If the tyre pressure registered by the sensor is outside the permissible tolerance range, the 'General' warning light flashes red.

The detailed description of BMW Motorrad RDC starts on page (➠ 73).

Ignition switch/steering lock

Keys

You receive two ignition keys and one emergency key. The emergency key is small and light so that it can always be kept in a wallet or purse, for example. It can be used when no ignition key is available. It is not intended for constant use.

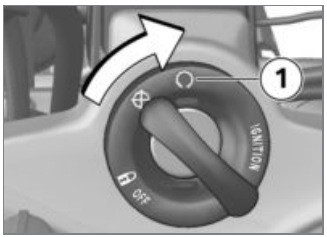
Please consult the information on the electronic immobiliser (EWS) (➠ 33) if a key is lost or mislaid.

Ignition switch/steering lock, fuel filler cap lock and seat lock are all operated with the same key.

– with case[OA]
– with topcase[OA]

If you wish you can arrange to have the cases and the topcase fitted with locks that can be opened with this key as well. Consult a specialist workshop, preferably an authorised BMW Motorrad dealer.

Switching on ignition



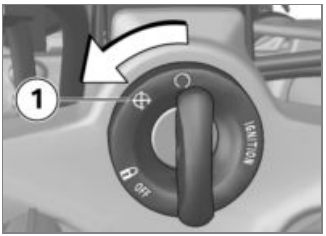
- Insert the key in the ignition switch and turn to position **1**.

» Side lights and all function circuits are switched on.
» Pre-ride check is performed. (➠ 62)
» ABS self-diagnosis is performed. (➠ 62)

– with Automatic Stability Control (ASC)[OE]

» ASC self-diagnosis is in progress. (➠ 63)◁

Switching off ignition

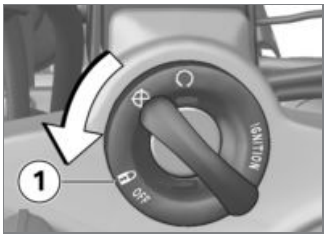


- Turn the key to position **1**.

» 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 socket.

Lock the handlebars

- Turn the handlebars all the way to the left.



- Turn the key to position **1**, while moving the handlebars slightly.

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

Electronic immobiliser (EWS)

The electronic design of the motorbike allows it to access data stored in the ignition key by means of a ring antenna located in the ignition switch. The engine control unit will only allow the engine to be started if the key is identified as “authorised”.

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.◀

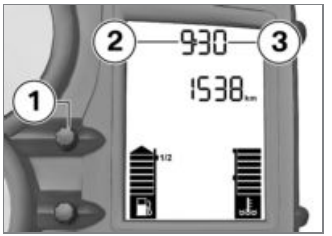
If you lose your key, you can have it barred by your authorised BMW Motorrad dealer. If you wish to do this, you will need to bring all other keys for the motorbike with you.
The engine cannot be started by a barred key, but a key that has been barred can subsequently be reactivated.
You can obtain emergency/extra 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.

Clock

Setting clock

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

- Switch on the ignition.

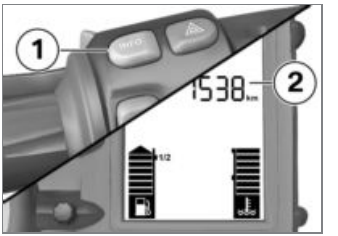


- Press and hold down button **1** until the hours number **2** flashes.
- Repeatedly press button **1** until the hours number is correct.
- Press and hold down button **1** until the minutes number **3** flashes.
- Repeatedly press button **1** until the minutes number is correct.

Reading

Selecting readings

- Switch on the ignition.



- Press button **1** to select the reading in values area **2**.

The following values can be displayed:

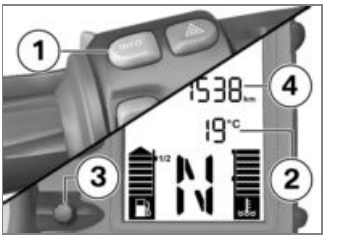
– Total kilometres (shown)
– Tripmeter 1 (`Trip I`)
– Tripmeter 2 (`Trip II`)

– Warnings, if applicable

– with tyre pressure monitoring (RDC)[OE]

Tyre pressures◁

– with on-board computer[OE]



- Press button **1** to select the reading in values area **2**.

The following values can be displayed:

°C Ambient temperature

Average speed

Average consumption

Current consumption

Distance travelled after fuel down to reserve

- Press button **3** to select the reading in values area **4**.

The following values can be displayed:

– Total kilometres (shown)
– Tripmeter 1 (Trip I)
– Tripmeter 2 (Trip II)

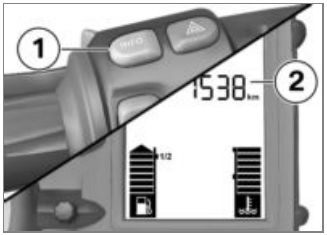
– Warnings, if applicable

– with tyre pressure monitoring (RDC)[OE]

Tyre pressures◁◁

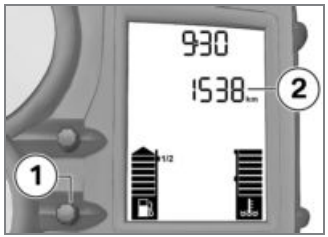
Resetting tripmeter

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



- Press and hold down button **1** until the tripmeter **2** reading is reset.

– with on-board computer[OE]



- Press and hold down button **1** until the tripmeter **2** reading is reset.◁

Resetting the average values

– with on-board computer[OE]

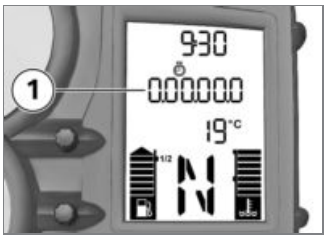
- Switch on the ignition.
- Select average consumption or average speed.

- Press and hold down button **1** until the value shown is reset.

Stopwatch

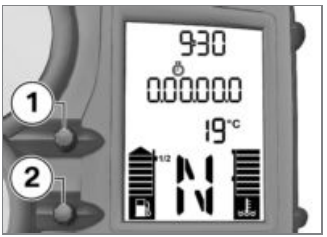
– with on-board computer[OE]

Stopwatch



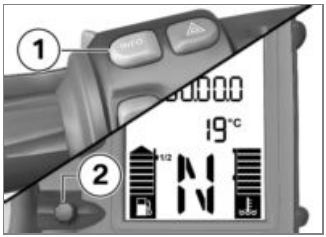
You can switch from the odometer reading to a stopwatch **1**. The readout is in hours, minutes, seconds and tenths of a second, with dots as separators.
The stopwatch continues to time in the background if you switch back temporarily to the odometer reading. Similarly, the stopwatch continues timing if you temporarily switch off the ignition.

Operating stopwatch



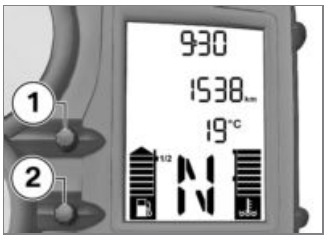
- If necessary, use button **1** to switch from the odometer to the stopwatch.
- When the stopwatch is stopped, press button **2** to start timing with the stopwatch.
- When the stopwatch is running, press button **2** to stop timing with the stopwatch.
- Press and hold down button **2** to reset the stopwatch.

Lap timer



By swapping the functions of button **1** on the handlebar fitting and the functions of button **2**, you can make the stopwatch easier to use (as a lap timer) as you ride. If you swap the functions in this way the stopwatch and the milometer are operated by means of button **1** and you must use button **2** to operate the on-board computer.

Changing button functions



- Press button **1** and button **2** at the same time and hold them down until the reading changes.

» FLASH (redline warning) appears, along with ON or OFF.

- Press button **2**.

» LAP (Lap-Timer) and ON or OFF appear.

- Repeatedly press button **1** until the reading shows the mode you want.

» ON: Stopwatch operated by means of the INFO button on the handlebar fitting.

» OFF: Stopwatch operated by means of button **2** in the instrument panel.

- To save the setting, press button **1** and button **2** at the same time and hold them down until the reading changes.

Lights

Side light

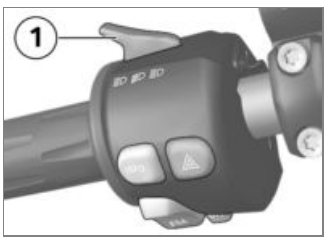
The side lights switch on automatically when the ignition is switched on.

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

Low-beam headlight

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

High-beam headlight and headlight flasher



- Push switch **1** forward to switch on the high-beam headlight.
- Pull switch **1** back to operate the headlight flasher.

Parking light

- Switch off the ignition.

- Immediately after switching off the ignition, push button **1** to the left and hold it in this position until the parking lights come on.
- Switch the ignition on and off again to switch off the parking lights.

Turn indicators

Operating the flashing turn indicators

- Switch on the ignition.

- Push button **1** to the left to switch on the left flashing turn indicators.
- Push button **1** to the right to switch on the right flashing turn indicators.
- Press button **1** to switch off the flashing turn indicators.

The turn indicators are cancelled automatically after you have ridden for approximately 10 seconds and covered a distance of about 300 m.◀

Hazard warning flashers

Operate hazard warning flashers

- Switch on the ignition.

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.◀

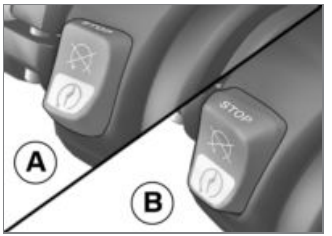
- Press button **1** to switch on the hazard warning flashers.
» Ignition can be switched off.
- Press button **1** again to switch off the hazard warning flashers.

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 Engine switched off
B Normal operating position (run)

Heated handlebar grips

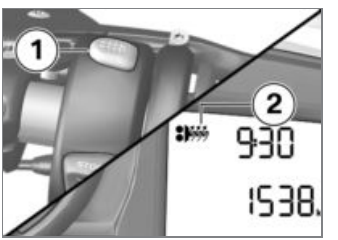
– with heated handlebar grips OE

Operate the heated handlebar grips

• Start the engine.

The heating in the heated handlebar grips can be activated only when the engine is running.◀

The increase in power consumption caused by having the heated handlebar grips switched on can drain the battery if you are riding at low engine speeds. If the charge level is low, the heated handlebar grips are switched off to ensure the battery's starting capability.◀



• Repeatedly press button **1** until the desired heating stage **2** appears on the display.

The handlebar grips have two-stage heating. Stage two is for heating the grips quickly: it is advisable to switch back to stage one as soon as the grips are warm.

50 % heating power

100 % heating power

» The selected heating stage will be saved if you allow a certain length of time to pass without making further changes.

• In order to switch off the heated handlebar grips, repeatedly press button **1** until the heated handlebar grip symbol **2** is no longer shown on the display.

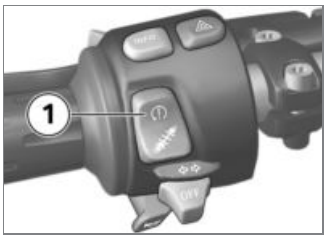
BMW Motorrad ASC

– with Automatic Stability Control (ASC) OE

Switch off the ASC function

• Switch on the ignition.

You have the option of deactivating the ASC function while the motorcycle is on the move.◀



- Press and hold down button **1** until the ASC warning light changes status.

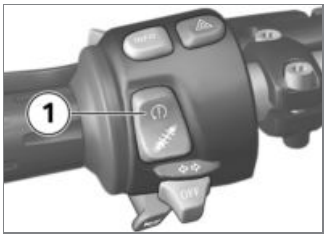
ASC warning light flashes.

- Release button **1** within two seconds.

ASC warning light continues to flash.

» ASC function is switched off.

Switch on the ASC function



- Press and hold down button **1** until the ASC warning light changes status.

ASC warning light goes out; if self-diagnosis has not completed it starts flashing.

- Release button **1** within two seconds.

ASC warning light remains off or continues to flash.

» ASC function is switched on.

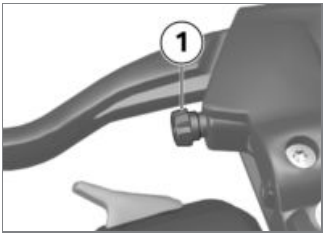
- You also have the option of switching the ignition off and then on again.

An ASC fault has occurred if the ASC warning light shows when the motorcycle accelerates to a speed in excess of 5 km/h after the ignition was switched off and then on again.◀

Clutch

Adjust the clutch lever

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 to increase the span between the clutch lever and the handlebar grip.
- Turn adjusting screw **1** counter-clockwise to reduce the span between the clutch lever and the handlebar grip.

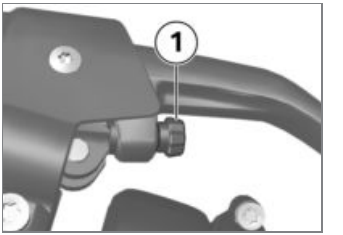
The adjusting screw is easier to turn if you push the clutch lever forward.◀

Brakes

Adjust the handbrake lever

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

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



- Turn adjusting screw **1** clockwise to increase the span between the brake lever and the handlebar grip.
- Turn adjusting screw **1** counter-clockwise to reduce the span between the brake lever and the handlebar grip.

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

Mirrors

Adjusting mirrors

- Adjust the mirror by twisting the casing and the mirror arm into the desired position.

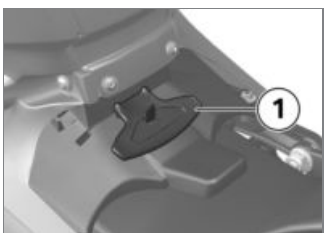
Spring preload

Setting

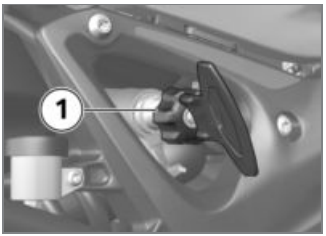
It is essential to set spring preload of the rear suspension to suit the load carried by the motorcycle. Increase spring preload when the motorcycle is heavily loaded and reduce spring preload accordingly when the motorcycle is lightly loaded.

Adjust spring preload for rear wheel

- Removing seat (➠ 47).



- Remove on-board toolkit **1**.



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

- If you want to increase spring preload, use the tool from the on-board toolkit to turn knob **1** clockwise.
- If you want to reduce spring preload, use the tool from the on-board toolkit to turn knob **1** counter-clockwise.

Basic setting of spring preload, rear
Turn the adjuster as far as it will go counter-clockwise (One-up without luggage)
Turn the adjuster as far as it will go counter-clockwise, then back it off 12 turns in the clockwise direction. (One-up with luggage)
Turn the adjuster as far as it will go counter-clockwise, then back it off 18 turns in the clockwise direction. (One-up with luggage and topcase)
Turn the adjuster as far as it will go clockwise (Two-up with luggage and topcase)

- Stow the on-board toolkit in its correct position.
- Install the seat (➠ 48).

Damping

Setting

Damping must be adapted to suit the condition of the surface on which the motorcycle is ridden and to suit spring preload.

– An uneven surface requires softer damping than a smooth surface.
– An increase in spring preload requires firmer damping, a reduction in spring preload requires softer damping.

Adjust the damping for rear wheel

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

- If you want to increase damping, turn adjusting screw **1** clockwise.
- If you want to reduce damping, turn adjusting screw **1** counter-clockwise.

Basic setting of rear-suspension damping characteristic
– without Electronic Suspension Adjustment (ESA) OE

Basic setting of rear-suspension damping characteristic
Turn the adjusting screw as far as it will go in the clockwise direction and then back it off one and a half turns (One-up without luggage)
Turn the adjusting screw as far as it will go in the clockwise direction and then back it off half a turn (One-up with luggage/two-up with luggage)◁

Electronic Suspension Adjustment (ESA)

– with Electronic Suspension Adjustment (ESA)OE

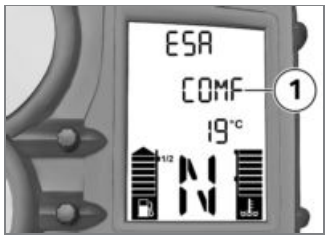
Possible settings

With the help of Electronic Suspension Adjustment ESA, you can calibrate the rear-wheel damping to the terrain with ease.

Call up settings

• Switch on the ignition.

• Press button **1** to view the current setting.



The currently selected damping is shown on the multifunction display at **1**. The meanings of the readings are as follows:

– COMF: Comfortable damping characteristic
– NORM: Normal damping characteristic
– SPORt: Sporty damping characteristic

» The setting shows briefly, then disappears automatically.

Adjust the chassis and suspension

• Switch on the ignition.

- Press button **1** to view the current setting.

To make different adjustment to the damping:

- Repeatedly press button **1** until the setting you want to use appears on the multifunction display.

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

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

» The ESA indicator disappears from the display as soon as adjustment completes.

Tyres

Checking tyre pressure

Incorrect tyre pressures impair the motorcycle's handling characteristics and increase the rate of tyre wear.

Always check that the tyre pressures are correct.◀

- Make sure the ground is level and firm and place the motorcycle on its stand.
- Check tyre pressures against the data below.

Tyre pressure, front
2.5 bar (tyre cold)

Tyre pressure, rear
2.9 bar (tyre cold)

If tyre pressure is incorrect:

- Correct tyre pressure.

Headlight

Adjusting headlight for driving on left/driving on right

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

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

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

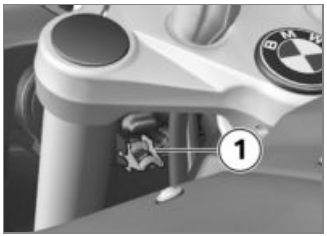
Consult a specialist workshop, preferably an authorised BMW Motorrad dealer, in order to avoid damaging the plastic lens of the light.◀

Headlight beam throw and spring preload

Headlight beam throw is generally kept constant when spring preload is adjusted to suit load. However, a spring preload adjustment might not suffice 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.

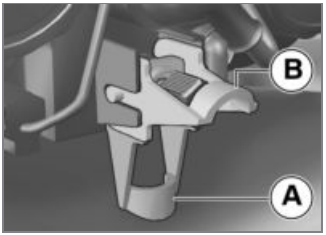
▷ If there are doubts about the correct headlight range, seek the advice of a specialist workshop, preferably an authorised BMW Motorrad dealer.◀

Adjusting headlight beam throw



1 Headlight beam-throw adjustment

The headlight beam-throw is adjusted via an engage pivot lever.

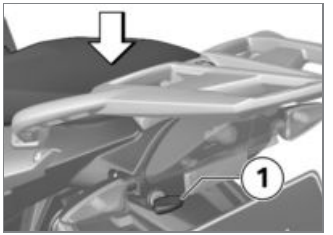


A Position for heavy load
B Neutral position

Seat

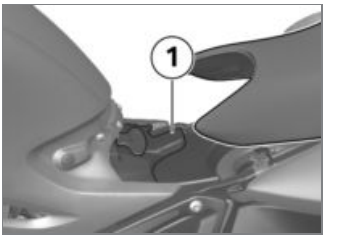
Removing seat

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



- Turn the key to the left in seat lock **1** and hold it in this position while pressing down the rear part of the seat.
- Lift the seat at the rear and release the key.
- Remove the seat and place it, upholstered side down, on a clean surface.

Installing the seat



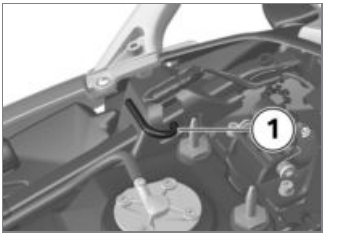
- Position the seat in holder **1** and apply firm downward pressure to the rear of the seat.

» The seat engages with an audible click.

Helmet holder

Secure the helmet to motorcycle

- Removing seat (➠ 47).



- Use a plastic-sheathed steel cable to secure the helmet to helmet holder **1**.

The helmet catch can scratch the panelling.
Make sure the lock is out of the

way when you hook the helmet into position.◀

- Position the helmet as shown in the illustration.
- Install the seat (➠ 48).

Overview

– with anti-theft alarm OE

General information about the anti-theft alarm (DWA)

Any attempt to move the vehicle, change its position, start it without an authorised key or disconnect the starter battery will trigger the alarm. The sensitivity of the system is parameterised so that slight vibrations will not trigger the alarm. Once the system has been activated, any attempt to tamper with the vehicle is indicated acoustically by the siren and visually by all four turn indicators flashing in unison.

You can change some of your DWA alarm system's parameters to suit your personal preferences.

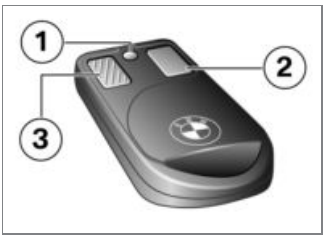
Conserving power in the vehicle's starter battery

In order to conserve the power of the starter battery and ensure that the vehicle will start, the DWA anti-theft alarm automatically switches off the alarm function a few days after being activated. In most cases, however, the system will remain active for at least 10 days.

Radio interference

Radio systems or devices transmitting on the same frequency as the remote control of the DWA anti-theft alarm can interfere with operation of the system. If problems of this nature occur, point the remote control toward the vehicle from another direction.

Controls



1 LED
2 Right button (➠ 52)
3 Left button (ribbed) (➠ 51)

See your Rider's Manual for details of the position of the status-indicator LED on the motorcycle.◀

Activation

– with anti-theft alarm OE

Activation with motion sensor

The alarm function is activated
- by pressing button **1** on the remote control once, or
- by switching off the ignition (if programmed); when the ignition is switched off 30 seconds elapse before the start of the activation phase

Activation is confirmed
- by the turn indicators flashing twice and
- by the alarm tone sounding twice.

If you want to activate the alarm function more than one minute after switching off the ignition, you must press button **1** for longer than one second. If it is not armed within approximately one hour, the DWA anti-theft alarm shuts down in order not to draw power unnecessarily from the battery. If you want to activate the alarm function after the anti-theft alarm has shut down in this way, you have to switch the ignition on and then off again.

Activation phase

The anti-theft alarm needs 15 seconds to achieve fully active status. No alarm is triggered during this time.

Conserving battery power

If you want to activate the alarm function more than one minute after switching off the ignition, you must press button **1** for longer than one second. If it remains deactivated for approximately one hour, the anti-theft alarm shuts down in order not to draw power unnecessarily from the battery. If you want to activate the alarm function after the anti-theft alarm has shut down in this way, you have to switch the ignition on and then off again.

Motion sensor when motorcycle is to be transported

If you want to transport your motorcycle by train or on a trailer, for example, it is advisable to switch off the motion sensor. If the motion sensor is not switched off the severe movements occurring in transit could trigger the alarm.

Deactivating motion sensor

- Press button **1** on the remote control a second time during the activation phase.

» Turn indicators flash three times.
» Alarm tone sounds three times.
» Motion sensor is deactivated.

Alarm function

– with anti-theft alarm OE

Alarm triggers

An alarm can be triggered by:
– the motion sensor
– attempt to switch on the ignition with an unauthorised key
– disconnection of the anti-theft alarm (DWA) from the vehicle's battery (DWA internal battery in the anti-theft alarm provides power).

Alarm

An alarm lasts for 26 seconds. The system is active again another 12 seconds later. You can interrupt an alarm at any time by pressing button **2** on the remote

control. This function does not change the status of the anti-theft alarm.
While an alarm is in progress an alarm tone sounds and the turn indicators flash. You can program the type of alarm tone.

Reason for an alarm

Once you have deactivated the alarm function, the anti-theft alarm status indicator is active for a period of one minute to show you reasons for alarms, if any, that were triggered in your absence:

- Flashes 1x: Motion sensor; motorcycle was rocked forward/back
- Flashes 2x: Motion sensor; motorcycle was rocked to the side
- Flashes 3x: Ignition switched on with unauthorised key
- Flashes 4x: Disconnection of the anti-theft alarm from the vehicle's battery

Information on alarm triggering

If an alarm was triggered after the last activation of the alarm function, the rider is notified accordingly by an alarm tone sounding once when the ignition is switched on.

Deactivation

– with anti-theft alarm OE

Deactivating alarm function

- Press button **2** on the remote control once **or** switch on the ignition with an authorised key.

Note that you can deactivate the alarm function with the ignition key only when the kill switch is in the RUN position.◀

If the alarm function is deactivated by the remote control and the ignition is not subsequently switched on, the alarm function automatically goes active again after 30 seconds if

"Activation after ignition OFF" is programmed.◀

» Turn indicators flash once.
» Alarm tone sounds once (if programmed).
» Alarm function is deactivated.

Conserving battery power

Approximately one hour after the alarm is armed, the receiver for the remote control in the anti-theft alarm shuts down in order not to draw power unnecessarily from the battery. If you want to deactivate the alarm function after the receiver has shut down in this way, you have to switch the ignition on.

Programming

– with anti-theft alarm OE

Programming options

You can customise the following parameters of your anti-theft alarm:

– Confirmation alarm tone after activation/deactivation of the anti-theft alarm in addition to visual confirmation by turn indicators flashing
– Rising and falling or intermittent alarm tone
– Automatic activation of the alarm function after the ignition is switched off

Default settings

The anti-theft alarm ships with the following default settings:

– Confirmation alarm tone after activation/deactivation of the anti-theft alarm: No
– Alarm tone: Intermittent
– Automatic activation of the alarm function after the ignition is switched off: No

Programming anti-theft alarm

• Deactivate the alarm function.
• Switch on the ignition.
• Press button **1** three times.
» Acknowledgement tone sounds once.
• Within ten seconds, switch off the ignition.
• Press button **2** three times.
» Acknowledgement tone sounds once.
• Within ten seconds, switch on the ignition.
» Acknowledgement tone sounds three times.

» The programming function is active.

Programming is a four-step process, although no function is allocated to step 2. The number of times the anti-theft alarm status-indicator light on the vehicle flashes corresponds to the active programming step. An alarm tone sounds by way of confirmation when button **1** is pressed, and an acknowledgement tone sounds when button **2** is pressed.

- **Step 1**: Do you want a confirmation tone to sound after activation/deactivation of the anti-theft alarm?

Yes:

- Press button **1**.

No:

- Press button **2**.

- **Step 2**:

No function allocated to this step.

- Press button **1** or button **2**.

- **Step 3**: Which alarm tone would you like the alarm to sound?

Rising and falling:

- Press button **1**.

Intermittent:

- Press button **2**.

- **Step 4**: Do you want to have the alarm function activated automatically when you switch off the ignition?

Yes:

- Press button **1**.

No:

- Press button **2**.

Under what circumstances is programming aborted?

Programming is aborted

– if the ignition is switched off before completion of the last step in the programming sequence.
– **or** automatically if more than 30 seconds are allowed to elapse between any two consecutive steps in the programming routine.

The new settings are not saved if programming is aborted.

Saving programming

Programming is saved

– if the ignition is switched off after completion of the last step in the programming sequence
– **or** automatically 30 seconds after completion of the last

step in the programming routine

The anti-theft alarm status indicator light stops flashing and four acknowledgement tones sound.

Registration of the remote control

– with anti-theft alarm OE

When is it necessary to register a remote control?

If you want to register an additional remote control or register a remote control as a replacement for one that has been mislaid, you must always register all the remote control units with the anti-theft alarm. You can register a maximum of four remote control units.

Registering remote control

- Deactivate the alarm function.
- Switch on the ignition.
- Press button **2** three times.

» Acknowledgement tone sounds once.

- Within ten seconds, switch off the ignition.
- Press button **2** three times.

» Acknowledgement tone sounds once.

- Within ten seconds, switch on the ignition.

» Acknowledgement tone sounds twice.

You can now register a maximum of four remote control units with the anti-theft alarm. Registration is a three-step process and has to be repeated for each remote control unit.

- Press and hold down button **1** and button **2**.

» LED flashes for ten seconds.

- As soon as the LED goes out, release button **1** and button **2**.

» LED lights up.

- Press button **1** or button **2**.

» Alarm tone sounds once.
» LED goes out.
» Remote control has been registered.

- Repeat this three-step procedure for each additional remote control.

Termination of registration

Logon is ended in the following situations:

– 4 remote control units have been logged on.
– Ignition is switched OFF.
– 30 seconds elapse without a button being pressed after the ignition has been switched off.
– 30 seconds elapse without a button being pressed after a remote control unit has been registered.

When registration terminates the LED flashes and the acknowledgement tone sounds three times.

Synchronising

– with anti-theft alarm OE

When is it necessary to synchronise the remote control?

The remote control has to be synchronised if the buttons of the remote control have been pressed more than 256 times outside the receiver's range. Once this limit has been reached, the receiver on the vehicle will no longer react to the signals from the remote control.

Synchronising remote control

- Press and hold down button **1** and button **2**.
» LED flashes for ten seconds.
- As soon as the LED goes out, release button **1** and button **2**.
» LED lights up.
- Press button **1** or button **2**.
» LED goes out.
– Remote control has been synchronised.

Battery

– with anti-theft alarm OE

When does the battery have to be changed?

The battery in the remote control is due to be changed after approximately 2 - 3 years. You can tell that the battery is weak if the LED does not light up or lights up only briefly when a button is pressed.

Changing battery

- Remove screw **4** and remove bottom part of housing **5**.
- Slide old battery **8** forward from under retainer **6**.

Using a battery of the wrong type or inserting the battery with the polarity reversed can cause irreparable damage to the device.
Use only the specified type of battery (see "Technical Data"). When inserting the battery, always make sure polarity is correct.◄

- Slip the new battery into position, making sure that the positive terminal of the battery is facing up.
- Position the bottom part of the housing at projection **9** of the front edge and close the housing, noting two guide pins **7**.
- Install screw **4**.

» The LED on the remote control lights up, indicating that the remote control has to be synchronised.

- To synchronise the remote control, make sure that it is within range of the receiver and press button **1** twice.

» LED **3** starts flashing and then goes out after a few seconds.
» The remote control is again ready for use.

Safety instructions

Rider's equipment

The following clothing will protect you for every journey:
– 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.

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.◀

- Set spring preload, damping characteristic and tyre pressures to suit total weight.
- Ensure uniform case volume and that the case volumes on the left and right are equal.
- Pack heavy items at the bottom and toward the inboard side.
- Observe the maximum permissible payload indicated on the label in the respective luggage system.
- Note the maximum permissible payload of the luggage carrier.

 Payload of luggage carrier
max 10 kg

- Note the maximum permissible payload of the tank rucksack.

 Payload of tank rucksack
– with tank rucksack OA

 Payload of tank rucksack
max 5 kg◁

Speed

If you ride at high speed, always bear in mind that various boundary conditions can adversely affect the handling of your motorcycle, e.g.:
– Spring-strut and shock-absorber system not set up correctly
– Imbalanced load
– Loose clothing
– Insufficient tyre pressure
– Poor tyre tread
– Added luggage systems such as cases, topcase, two-way radio box and tank rucksack. Observe the speed limit indicated on the label in the respective luggage system.

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.◀

Risk of burn injury

Engine and exhaust system become very hot when the vehicle is in use. There is a risk of burn injuries by contact with hot surfaces.
When you park the motorcycle make sure that no-one comes into contact with the engine and exhaust system.◀

Catalytic converter

If misfiring causes unburned fuel to enter the catalytic converter, there is a danger of overheating and damage.
The following guidelines must be observed:

- 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 overheating

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

Tampering with motorcycle settings (e.g. electronic engine management unit, throttle valves, clutch) can cause damages to the components in question and lead to failure of safety-relevant functions. Damage caused in this way is not covered by the warranty.
Do not tamper with the vehicle in any way that could result in tuned performance.◀

Checklists

Use the following checklists to check important functions, settings and wear limits.

Before each journey

– Brakes
– Brake-fluid levels, front and rear
– Clutch
– Damping-characteristic 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

Start engine

Gearbox lubrication is ensured only when the engine is running. Inadequate lubrication can result in damage to the gearbox.
Do not allow the motorcycle to roll for a lengthy period of time or push it a long distance with the engine switched off.◀

- Switch on the ignition.
» Pre-ride check is performed. (➠ 62)
» ABS self-diagnosis is performed. (➠ 62)
– with Automatic Stability Control (ASC)[OE]
» ASC self-diagnosis is in progress. (➠ 63)◁
- Select neutral or, if a gear is engaged, pull the clutch lever.

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.◀

- When starting a cold engine at low ambient temperatures: disengage the clutch and turn the twistgrip slightly to open the throttle.

- Press starter button **1**.

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.
See the subsection on jump starting in "Maintenance" for more details.◀

» The engine starts.
» If the engine refuses to start, consult the troubleshooting chart in the section entitled "Technical data" (➠ 112).

Pre-ride check

The instrument panel runs a test of the instruments and the telltale and warning lights when the ignition is switched on: this is the so-called "Pre-Ride-Check". The test is aborted if you start the engine before it completes.

Phase 1

The rev. counter and speedometer needles both swing to the limit values on their scales. At the same time, all the warning lights and telltale lights are switched on in succession.

Phase 2

The general warning light changes from yellow to red.

Phase 3

The rev. counter and speedometer needles both swing to the starting position on their scales. At the same time, all the warning lights and telltale lights switched on in the initial phase are switched off in reverse sequence.

If a needle did not move or if a warning light or telltale light did not show:

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

ABS self-diagnosis

BMW Motorrad ABS performs self-diagnosis to ensure its operability. Self-diagnosis is performed automatically when you switch on the ignition. The motorcycle has to move forward a few metres for the wheel-speed sensors to be tested.

Phase 1

Test of the diagnosable system components with the vehicle at a standstill.

ABS warning light flashes.

Phase 2

Test of the wheel-speed sensors as the vehicle pulls away from rest.

ABS warning light flashes.

ABS self-diagnosis completed

The ABS warning light goes out.

- Make sure that all the warning and telltale lights come on in the pre-ride check.

After the ABS self-diagnosis completes, an indicator showing an ABS fault will appear.

- You can continue to ride. 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.

ASC self-diagnosis

– with Automatic Stability Control (ASC)[OE]

BMW Motorrad ASC performs self-diagnosis to ensure its operability. Self-diagnosis is performed automatically when you switch on the ignition.

Phase 1

Test of the diagnosable system components with the vehicle at a standstill.

ASC warning light slow-flashes.

Phase 2

Test of the diagnosis-capable system components while the motorcycle is on the move (speed at least 5 km/h).

ASC warning light slow-flashes.

ASC self-diagnosis completed

The ASC warning light goes out.

- Check all the warning and telltale lights.

After the ABS self-diagnosis completes, an indicator showing an ABS fault will appear.

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

Running in

Engine

- Until the first running-in check, vary the throttle opening and engine-speed range frequently; avoid riding at constant engine rpm for prolonged periods.

- Try to do most of your riding during this initial period on twisting, fairly hilly roads.
- Comply with the rpm limits for running in.

Running-in speed
<5000 min^{-1}

- Note the mileage after which the first running-in check should be carried out.

Mileage until the first running-in check
500...1200 km

Brake pads

New brake pads have to bed down before they can achieve their optimum friction levels. You can compensate for this initial reduction in braking efficiency by exerting greater pressure on the levers.

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

Tyres

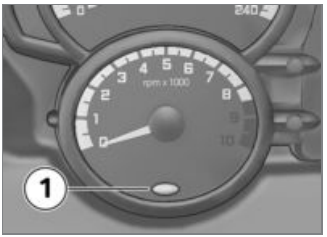
New tyres have a smooth surface. This must be roughened by riding in a restrained manner at various heel angles until the tyres are run in. This running in procedure is essential if the tyres are to achieve maximum grip.

New tyres do not provide full grip straight away. Wet roads and extremely sharp inclines pose a risk of accident. Ride carefully and avoid extremely sharp inclines.◀

Redline warning

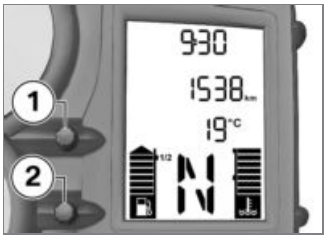
– with on-board computer OE

Redline warning



The redline warning indicates that engine revolutions have reached the rev. counter's red segment. The telltale light **1** flashes red to indicate that the engine is redlining.
The signal remains active until you shift up or reduce engine speed. You can activate or deactivate the redline warning.

Activating redline warning



- Press button **1** and button **2** at the same time and hold them down until the reading changes.

» FLASH (redline warning) appears, along with ON or OFF.

- Repeatedly press button **1** until the reading shows the mode you want.

» ON: Redline warning activated.

» OFF: Redline warning deactivated.

- To save the setting, press button **1** and button **2** at the same time and hold them down until the reading changes.

Brakes

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.

BMW Motorrad ABS prevents the front wheel from locking up.

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 and dirty brakes

Wetness and dirt on the brake discs and the brake pads diminish braking efficiency.
Delayed braking action or poor braking efficiency must be reckoned with in the following situations:

– Riding in the rain or through puddles of water
– After the vehicle has been washed
– Riding on salted or gritted roads
– After work has been carried on the brakes, due to traces of oil or grease
– Riding on dirt-covered surfaces or off-road.

Wetness and dirt result in poor braking efficiency.
Apply the brakes lightly while riding to remove wetness and dirt, or dismount and clean the brakes.
Think ahead and brake in good time until full braking efficiency is restored.◀

Parking your motorcycle

Side stand

• Switch off the engine.

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.◀

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

• Extend the side stand and prop the motorcycle on the stand.
• If the camber of the roadway permits, turn the handlebars all the way to the left.
• On a gradient, the motorcycle should always face uphill; select 1st gear.

Centre stand

– with centre stand OE

• Switch off the engine.

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.◀

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

- Extend the centre stand and lift the motorcycle onto the stand.
- On a gradient, the motorcycle should always face uphill; select 1st gear.

Refuelling

Fuel grade

For optimum fuel consumption, fuel should be sulphur-free or as low-sulphur as possible.

Leaded fuel will destroy the catalytic converter.
Do not attempt to run the vehicle on leaded fuel or fuel with metallic additives, e.g. manganese or iron.◀

- Fuels with a maximum Ethanol content of 10 %, i.e. E10, can be fuelled.

Recommended fuel grade
Super unleaded, (max. 10 % Ethanol, E10) 95 ROZ/RON 89 AKI

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.◀

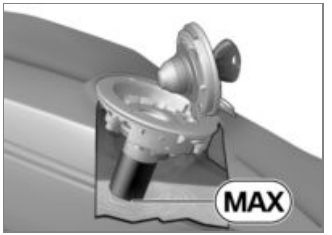
Fuel expands when hot. Fuel escaping from an overfilled tank could make its way onto the road surface. This could cause a fall.
Do not overfill the fuel tank.◀

Fuel attacks plastics, which become dull or unsightly.
Wipe plastic parts immediately after contact with fuel.◀

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

The volume of the tank can be utilised to the full only when the motorcycle is propped on its side stand.◀

- Open the protective cap **1**.
- Use the ignition key to unlock fuel filler cap **2** and pop the cap open.



- Refuel with fuel of the grade stated below; do not fill the tank past the bottom edge of the filler neck.

▷ If filling occurs after the fuel level has gone below the reserve limit, the amount filled must be greater than the reserve amount for the new fuel level to be recognised and the warning light to switch off.◀

▷ The “usable fuel capacity” specified in the technical data is the quantity that the fuel tank could hold if it had been run dry and the engine had cut out due to a lack of fuel.◀

Usable fuel capacity
approx. 15 l

Reserve fuel
approx. 4 l

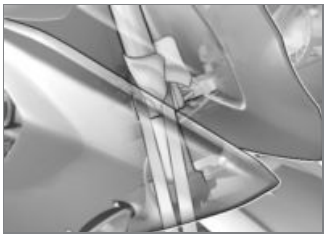
- Press the fuel tank cap down firmly to close.
- Remove the key and close the protective cap.

Securing motorcycle for transportation

- Make sure that all components that might come into contact with straps used to secure the motorcycle are adequately protected against scratching, e.g. adhesive tape or soft cloths should be used for this purpose.

⚠ The motorcycle can topple and fall on its side.
Secure motorcycle against toppling; this is best done with the support of a 2nd person.◀

- Push the motorcycle onto the transportation flat and hold it in position: do not place it on the side stand or centre stand.



Risk of damaging components.
Take care not to trap components such as brake lines or wires.◀

- At the front, secure the straps to the bottom fork bridge on both sides and tighten the straps.
- At the rear, secure the straps to the rear footrests on both sides and tighten the straps.
- Tighten all the straps uniformly; the vehicle's suspension should be compressed tightly front and rear.

Brake system with BMW Motorrad ABS

How does ABS work?

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

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

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

Rear wheel lift

Under very severe and sudden deceleration, however, it is possible that the ABS will be unable to prevent the rear wheel from lifting clear of the ground. If this happens the outcome can be a highsiding situation in which the motorcycle can flip over.

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

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

What is the design baseline for BMW Motorrad ABS?

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

Special situations

The speeds of the front and rear wheels are compared as one means of detecting a wheel's incipient tendency to lock. If the system registers implausible values for a lengthy period the ABS function is deactivated for safety reasons and an ABS fault message is issued. Self-diagnosis has to complete before fault messages can be issued.

Exceptional riding conditions can also lead to a fault message being issued:

- Riding for a lengthy period with the front wheel lifted off the ground (wheelie).
- Rear wheel rotating with the vehicle held stationary by applying the front brake (burnout).
- Heating up with the motorcycle on the centre stand or an auxiliary stand, engine idling or with a gear engaged.
- Rear wheel locked for a lengthy period, for example while descending off-road.

If a fault message is issued on account of exceptional riding conditions as outlined above, you can reactivate the ABS function by switching the ignition off and on again.

How important is regular maintenance?

Invariably, a technical system cannot perform beyond the abilities dictated by its level of maintenance.

In order to ensure that the BMW Motorrad ABS is always maintained in optimum condition, it is essential for you to comply strictly with the specified running-in checks.◀

Reserves for safety

The potentially shorter braking distances which BMW Motorrad 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 ABS is unable to counteract their effects. Invariably, the rider bears responsibility for assessing road and traffic conditions and adopting his or her style of riding accordingly.
Do not take risks that would negate the additional safety offered by this system.◀

Electronic engine management with BMW Motorrad ASC

– with Automatic Stability Control (ASC)[OE]

How does ASC work?

The BMW Motorrad ASC compares the speed of rotation of the front wheel and the rear wheel. The differential is used to compute slip as a measure of the reserves of stability available at the rear wheel. If slip exceeds a certain limit the engine control intervenes, adapting engine torque accordingly.

What is the design baseline for BMW Motorrad ASC?

The BMW Motorrad ASC is designed as an assistant system for the rider during use on public roads. The extent to which the rider affects ASC control can be considerable (weight shifts when cornering, items of luggage loose on the motorcycle), especially when style of riding takes rider and machine close to the limits imposed by physics.
The system is not optimised for special requirements that apply under extreme competitive situations off-road or on the track. The BMW Motorrad ASC can be deactivated in these cases.

Even ASC is constrained by the laws of physics. Invariably, the rider bears responsibility for assessing road and traffic conditions and adopting his or her style of riding accordingly.
Do not take risks that would negate the additional safety offered by this system.◀

Special situations

In accordance with the laws of physics, the accelerating ability is restricted more and more as the heel angle increases. Consequently, there can be a perceptible reduction in acceleration out of very tight bends.

The speeds of the front and rear wheels are compared as one means of detecting the rear wheel's incipient tendency to spin or slip sideways. If the system registers implausible values for a lengthy period the ASC

function is deactivated for safety reasons and an ASC fault message is issued. Self-diagnosis has to complete before fault messages can be issued.
The following exceptional riding conditions can lead to an automatic shutdown of the BMW Motorrad ASC:

– Riding for a lengthy period with the front wheel lifted off the ground (wheelie) with ASC deactivated.
– Rear wheel rotating with the vehicle held stationary by applying the front brake (burnout).
– Heating up with the motorcycle on the centre stand or an auxiliary stand, engine idling or with a gear engaged.

Accelerating the motorcycle to a speed in excess of 5 km/h after switching the ignition off and then on again reactivates the ASC.

If the front wheel lifts clear of the ground under severe acceleration, the ASC reduces engine torque until the front wheel regains contact with the ground. Under these circumstances, BMW Motorrad recommends rolling the throttle slightly closed so as to restore stability with the least possible delay.

When riding on a slippery surface, never snap the throttle twistgrip fully closed without pulling the clutch at the same time. Engine braking torque can cause the rear wheel to lock, with a corresponding loss of stability. The BMW Motorrad ASC is unable to control a situation of this nature.

Tyre pressure monitoring (RDC)

– with tyre pressure monitoring (RDC)[OE]

Function

A sensor integrated into each tyre measures the air temperature and the air pressure inside the tyre and transmits this information to the control unit.

Each sensor has a centrifugal-force tripswitch that does not enable transmission of the measured values until the vehicle has accelerated to about 30 km/h. The display shows "––" for each tyre until the tyre-pressure signal is received for the first time. The sensors continue to transmit the measured-value signals for approximately 15 minutes after the motorcycle comes to a stop.

Tyre-pressure ranges

The RDC control unit differentiates between three tyre-pressure ranges, all of which are parameterised for the motorcycle:

- Tyre pressure within permitted tolerance
- Tyre pressure close to limit of permitted tolerance
- Tyre pressure outside permitted tolerance

Temperature compensation

Tyre pressure is a temperature-sensitive variable: pressure increases as tyre air temperature rises and decreases as tyre air temperature drops. Tyre air temperature depends on ambient temperature, on the style of riding and the duration of the ride.

The tyre-pressure readings shown by the multifunction display are temperature-compensated. They are based on a tyre air temperature of 20 °C. The gauges on forecourt air lines do not compensate for temperature. The tyre pressure recorded depends on tyre air temperature. In most instances, therefore, these gauge readings will not tally with the pressures shown by the multifunction display.

Pressure adaptation

Compare the RDC value on the multifunction display with the value in the table on the inside cover of the Rider's Manual. Then use the air line to compensate for the difference between the RDC reading and the value in the table.

Example: According to the Rider's Manual, tyre pressure should be 2.5 bar, but the reading in the multifunction display is 2.3 bar. The gauge on the air line shows 2.4 bar. You must now increase tyre pressure by the 0.2 bar difference between the value in the table and the RDC reading; when the air-line gauge shows 2.6 bar, the tyre is inflated to the correct pressure.

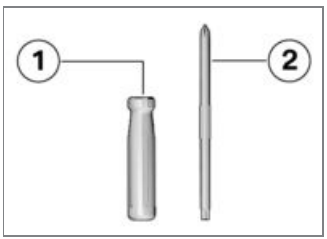
General instructions

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 vehicle are listed in the section entitled "Technical data".
Further information on maintenance and repair works is available from your BMW Motorrad authorised dealer in the form of a DVD.

Some of the work requires special tools and a thorough knowledge of the technology involved. If you are in doubt consult a specialist workshop, preferably your authorised BMW Motorrad dealer.

Toolkit

Standard tool kit

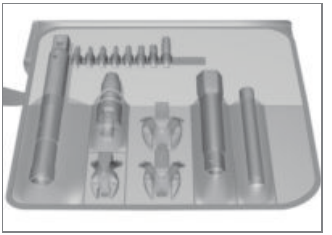


1 Screwdriver handle

2 Reversible screwdriver blade
Phillips PH1 and Torx T25
- Remove turn indicator bulbs, front and rear (➠ 96).
- Replacing the brake light and rear light bulbs (➠ 95).
- Removing centre trim panel (➠ 97).
- Removing battery (➠ 101).

Service toolkit

– with service toolkit OA



BMW Motorrad has assembled a service toolkit that is ideal for carrying out extended work (e.g. removing and installing wheels) on this motorcycle. You can obtain the tools set from your authorised BMW Motorrad dealer.

Engine oil

Checking engine oil level

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 of oil level.
In order to ensure that the engine oil level is read correctly, check the oil level only after at engine operating temperature.◀

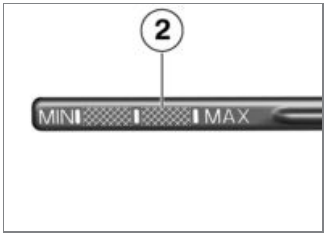
- Wipe the area around the oil filler neck clean.
- Allow the engine to idle until the fan starts up, then allow it to idle one minute longer.
- Switch off the engine.
- Make sure the engine is at operating temperature and hold the motorcycle upright.

– with centre stand OE

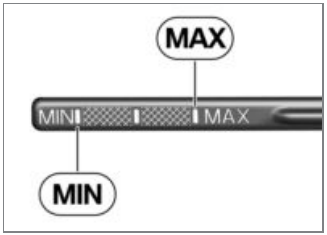
- Check that the engine is at operating temperature, make sure the ground is level and firm and place the motorcycle on its centre stand.◁

The motorcycle can topple and fall on its side.
Secure motorcycle against toppling; this is best done with the support of a 2nd person.◀

- Remove oil dipstick **1**.



- Use a dry cloth to wipe gauge length **2** clean.
- Seat the oil dipstick on the oil filler neck, but do not engage the threads.
- Remove the oil dipstick and check the oil level.



Engine oil, specified level
Between MIN and MAX marks

Engine oil, quantity for topping up
Viscosity class
max 0.4 l (Difference between MIN and MAX)

If the oil level is below the MIN mark:

- Topping up the engine oil (➠ 77).

If the oil level is above the MAX mark:

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

- Install the oil dipstick.

Top up the engine oil

Damage to the engine can result if it is operated without enough oil, but the same also applies if the oil level is too high.
Always make sure that the oil level is correct.◀

- Make sure the ground is level and firm and place the motorcycle on its stand.
- Wipe the area around the filler neck clean.

- Remove oil dipstick **1**.
- Check engine oil level (➠ 76).
- Top up the engine oil to the specified level.
- Check engine oil level (➠ 76).
- Install the oil dipstick.

Brake system

Check operation of brakes

- Pull the front brake lever.

» The pressure point must be clearly perceptible.

- Press the footbrake lever.

» The pressure point must be clearly perceptible.

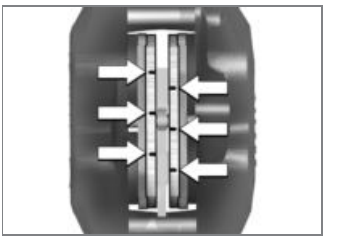
If pressure points are not clearly perceptible:

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

Checking front brake pad thickness

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

- Visually inspect the front left and right brake pads to ascertain their thickness. Viewing direction: between wheel and front suspension toward the brake calipers.



	Brake-pad wear limit, front
	min 1.0 mm (Friction pad only, without backing plate. The wear indicators (grooves) must be clearly visible.)

If the wear indicating marks are no longer clearly visible:

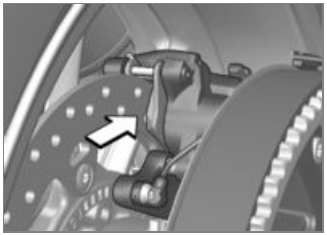
⚠ Brake pads worn past the minimum permissible thickness can cause a reduction in braking efficiency and under

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.◀

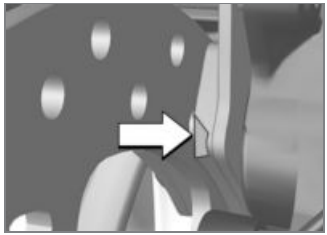
- Have the brake pads replaced by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Checking rear brake pad thickness

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



- Visually inspect the brake pads to ascertain their thickness. Viewing direction: from the rear toward the brake caliper.



	Brake-pad wear limit, rear
min 1.0 mm (Friction pad only, without backing plate. The grooved edge must be clearly visible.)	

If the wear indicating mark is no longer visible:

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.◀

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

Checking brake-fluid level, front brakes

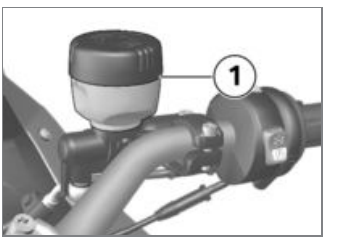
⚠ A low fluid level in the brake reservoir can allow air to penetrate the brake system. This significantly reduces braking efficiency.
Check the brake-fluid level at regular intervals.◀

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

– with centre stand OE

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

- Move the handlebars to the straight-ahead position.



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

▷ Wear of the brake pads causes the brake fluid level in the reservoir to sink.◀

Brake fluid level, front
Brake fluid, DOT4
Do not permit the brake fluid level to drop below the MIN mark.

If the brake fluid level drops below the permitted level:

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

Check the brake-fluid level, rear brakes

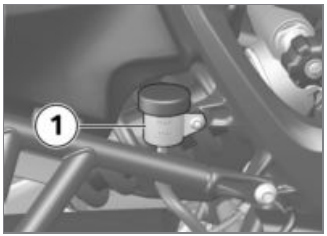
A low fluid level in the brake reservoir can allow air to penetrate the brake system. This significantly reduces braking efficiency.

Check the brake-fluid level at regular intervals.◀

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

– with centre stand OE

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



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

Wear of the brake pads causes the brake fluid level in the reservoir to sink.◀

Brake fluid level, rear
Brake fluid, DOT4
It is impermissible for the brake fluid level to drop below the MIN mark.

If the brake fluid level drops below the permitted level:

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

Coolant

Checking coolant level

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

- Check the coolant level in expansion tank **1**. For better visibility, shine a light at the bottom of the tank.

Coolant, specified level	
Between MIN and MAX marks on the expansion tank	

If the coolant drops below the permitted level:

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

Clutch

Checking clutch function

- 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.

Check the clutch play

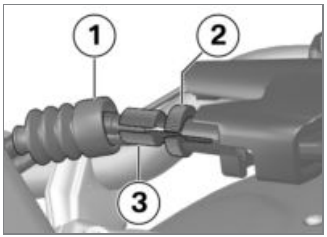
- Operate the clutch lever until resistance can be felt whilst observing the notch between edges **1** and **2** in the manual valve.

» The inner edge **1** of the brake cable should be able to move up to the edge **2** of the manual valve.

Clutch play is out of tolerance:

- Adjusting clutch play (➠ 83).

Adjusting clutch play



- Move the rubber grommet **1** to one side.
- Slacken nut **2**.
- To increase clutch play: screw the adjusting screw **3** into the manual valve.
- To reduce clutch play: unscrew the adjusting screw **3** from the manual valve.
- Check the clutch play (➠ 83).
- Tighten nut **2** while holding the adjusting screw **3** in position.
- Fasten the rubber grommet **1** over the nut.

Rims and tyres

Checking rims

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

Check the 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.

▷ Wear indicators are built into the main profile grooves on each tyre. 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 is worn to minimum:

- Replace tyre or tyres, as applicable.

Wheels

Tyre recommendation

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.

Effect of wheel size on ABS

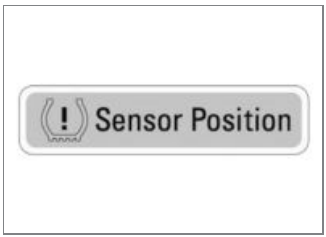
The wheel size has a large influence on the functionality of the ABS system. In particular, the diameter and the width of a vehicle's wheels are programmed into the control unit and are fundamental to all calculations. Any change in these influencing variables, caused for example by a switch to non-standard installed wheels, can have serious effects on the performance of the control systems.

The sensor rings are essential for correct road-speed calculation, and they too must match the motorcycle's control systems and consequently cannot be changed.

If you decide that you would like to fit non-standard wheels to your motorcycle, it is very important to consult a specialist workshop beforehand, preferably an authorised BMW Motorrad dealer. In some cases, the data programmed into the control units can be changed to suit the new wheel sizes.

RDC adhesive label

– with tyre pressure monitoring (RDC)[OE]

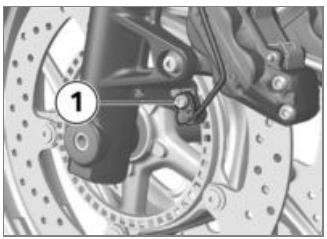


Incorrect tyre fitting can damage the RDC sensors. Be sure to explain to the authorised BMW Motorrad dealer or the specialist workshop that the wheel is fitted with an RDC sensor.◀

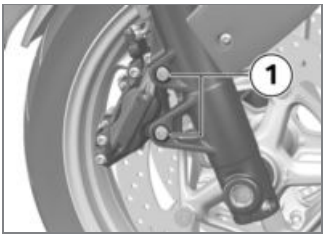
If the motorcycle is equipped with RDC, each wheel rim bears an adhesive label indicating the position of the RDC sensor.

Removing front wheel

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

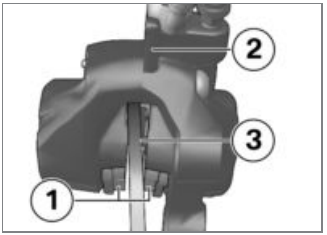


- Remove screw **1** and remove the wheel-speed sensor from its bore.



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 screws **1** of the brake calipers on left and right.



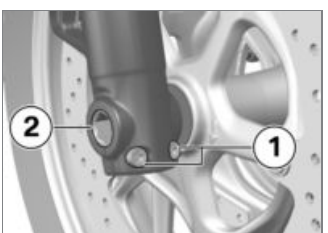
- Force the brake pads **1** slightly apart by rocking brake caliper **2** back and forth against brake disc **3**.
- Mask off the parts of the wheel rim that could be scratched in the process of removing the brake calipers.
- Carefully pull the brake calipers back and out until clear of the brake discs.

- Place the motorcycle on an auxiliary stand; BMW Motorrad recommends the BMW Motorrad rear-wheel stand.
- Installing the rear-wheel stand (➠ 91).

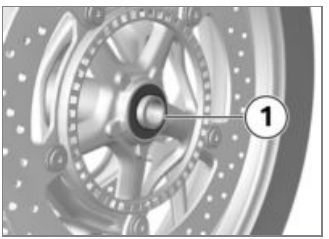
– with centre stand OE

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

- Raise front of motorcycle until the front wheel can turn freely. BMW Motorrad recommends the BMW Motorrad front-wheel stand for lifting the motorcycle.
- Install the front-wheel stand (➠ 89).



- Slacken axle clamping screws **1**.
- Remove quick-release axle **2**, while supporting the wheel.
- Roll the front wheel forward to remove.



- Remove spacing bushing **1** from the left-hand side of the wheel hub.

Installing front wheel

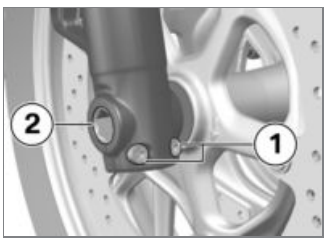
⚠ Malfunctions are possible when the ABS system intervenes if non-standard wheels are installed.
See the information on the effect of wheel size on the ABS system at the start of this chapter.◀

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.◀

- Slip spacing bushing **1** into the wheel hub on the left-hand side.

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.◀

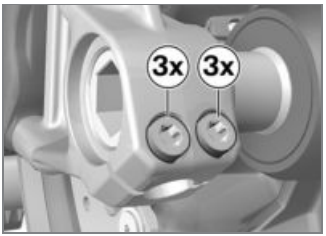
- Roll the front wheel between the front wheel suspension (telescopic forks).



- Raise the front wheel, insert quick-release axle **2** and tighten to specified torque.

Quick-release axle in telescopic forks
50 Nm

- Tighten axle clamping screws **1** to the specified tightening torque.



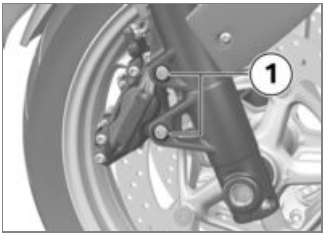
Clamp of quick-release axle
Tightening sequence: Tighten screws six times in alternate sequence
19 Nm

- Removing the front-wheel stand.

– without centre stand OE

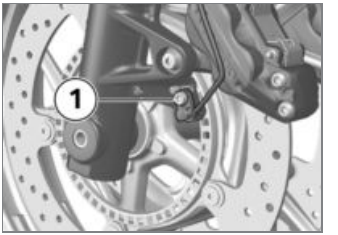
- Remove the auxiliary stand.◁

- Ease the brake calipers on to the brake discs.



- Install screws **1** and tighten to the specified tightening torque.

	Brake caliper on fork leg
30 Nm	



- Insert the wheel-speed sensor into the bore and install screw **1**.
- Remove the adhesive tape from the wheel rim.
- Operate the brake several times until the brake pads are bedded.

Removing rear wheel

- Make sure the ground is level and firm and place the motorcycle on a suitable auxiliary stand; BMW Motorrad recommends the BMW Motorrad rear-wheel stand.
- Installing the rear-wheel stand (➠ 91).

– with centre stand OE

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

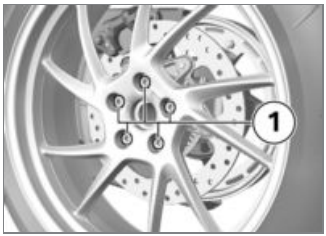
- Remove studs **1** from the rear wheel, while supporting the wheel.
- Roll the rear wheel out toward the rear.

Installing the rear wheel

Malfunctions are possible when the ABS system intervenes if non-standard wheels are installed.
See the information on the effect of wheel size on the ABS system at the start of this chapter.◀

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.◀

- Seat the rear wheel on the rear-wheel adapter.



- Tighten screws **1** to specified torque in diagonally opposite sequence.

	Rear wheel to drive shaft
Tightening sequence: tighten in a crosswise sequence	
60 Nm	

– without centre stand OE
- Remove the auxiliary stand.◁

Front-wheel stand

Installing the front-wheel stand

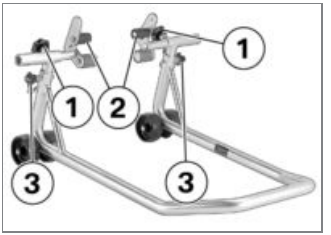
The BMW Motorrad front wheel stand is not designed to support the motorcycle without the assistance of an auxiliary stand. A motorcycle resting only on the front wheel stand and the rear wheel can topple.
Place the motorcycle on an auxiliary stand before lifting the front wheel with the BMW Motorrad front-wheel stand.◀

- Place the motorcycle on an auxiliary stand; BMW Motorrad recommends the BMW Motorrad rear-wheel stand.
- Installing the rear-wheel stand (⇒ 91).

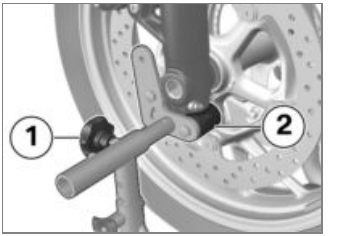
– with centre stand OE

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

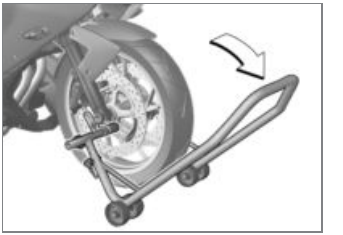
- Use basic stand with front-wheel adapter. The basic stand and its accessory components are available from your BMW Motorrad authorised dealer.



- Slacken securing screw **1**.
- Push the two adapters **2** apart until the telescopic 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 telescopic forks are securely seated.
- Tighten securing screw **1**.



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

– with centre stand OE

If the motorcycle is raised too far the centre stand will lift clear of the ground and the motorcycle could topple to one side.

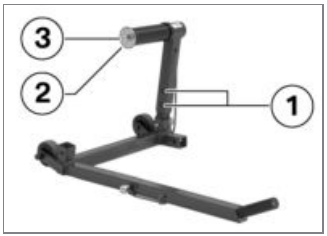
When raising the motorcycle, make sure that the centre stand remains on the ground. If necessary, adjust the height of the front-wheel stand.◀

- Make sure the motorcycle is standing firmly.◁

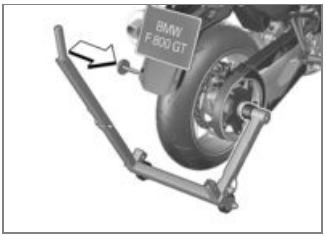
Rear-wheel stand

Install the rear-wheel stand

- Make sure the ground is level and firm and place the motorcycle on its stand.
- Use basic stand with rear axle adapter. The basic stand and its accessory components are available from your BMW Motorrad authorised dealer.



- Use screws **1** to set the rear-wheel stand to the desired height.
- Remove retaining disc **2**. To do so, press release button **3**.



- Push the rear-wheel stand from the right onto the rear axle.
- Push the retaining disc on from the left, while holding the unlock button down.

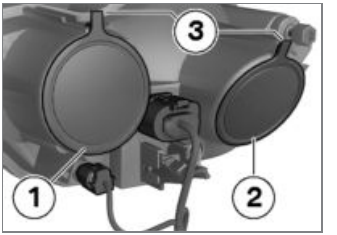
- Hold the motorcycle upright and at the same time press the

handle of the stand back until both rollers of the stand are on the ground.
- Then press the handle down to the ground.

Bulbs

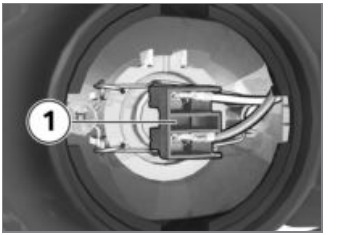
Replacing low-beam and/or high-beam headlight bulb

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

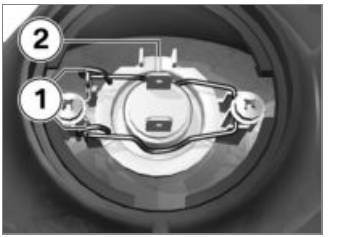


- Remove cover **1** for the high-beam headlight or cover **2** for the low-beam headlight as applicable, by pulling lever **3**.

▷ The positions of the plug, the spring wire retainer and the bulb might not be as illustrated below.◀



- Disconnect plug **1**.



- Disengage spring wire clips **1** from the fastenings and swing them aside.
- Remove bulb **2**.

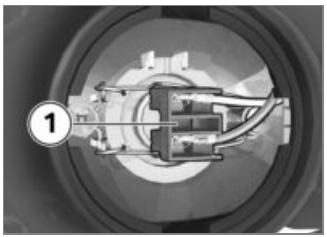
- Replace the defective bulb.

Bulb for high-beam headlight
H7 / 12 V / 55 W

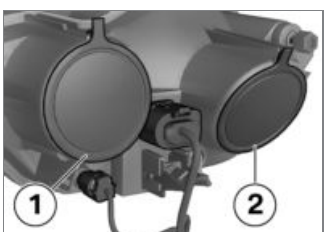
Bulbs for the low-beam headlight
H7 / 12 V / 55 W

- Hold the new bulb by the base only, in order to keep the glass free of foreign matter.

- Install the bulb **1** making sure that the tab is correctly positioned.
- Close and lock spring wire clips **2**.



- Connect plug **1**.



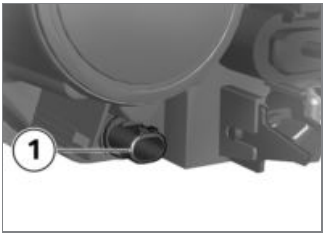
- Install cover **1** for the high-beam headlight or cover **2** for the low-beam headlight.

Replacing bulb for parking light

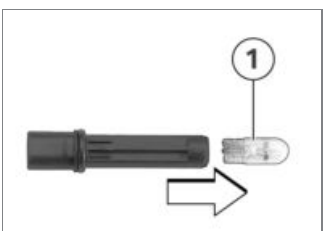
- Make sure the ground is level and firm and place the motorcycle on its stand.
- Switch off the ignition.

Turn the handlebars to the left to facilitate access.◀

- Disconnect plug **1**.



- Turn bulb socket **1** counter-clockwise to remove.

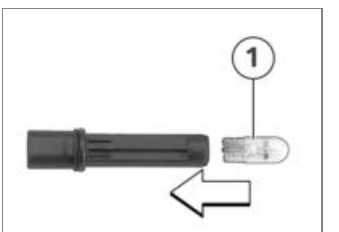


- Remove bulb **1** from the bulb holder.

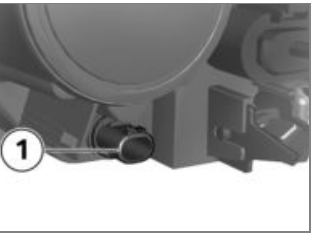
- Replace the defective bulb.

	Bulb for parking light
W5W / 12 V / 5 W	

- Use a clean, dry cloth to hold the new bulb in order to keep the glass free of foreign matter.



- Push bulb **1** into its socket.



- Turn bulb socket **1** clockwise to install.

- Connect plug **1**.

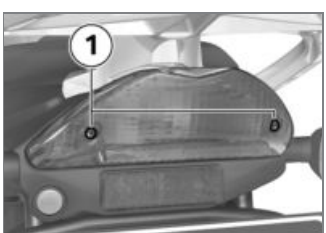
Replacing the brake light and rear light bulbs

– with LED rear light OA

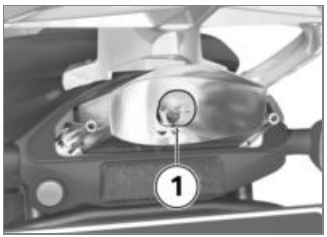
- The LED rear light can be replaced only as a complete unit. Consult a specialist workshop, preferably an authorised BMW Motorrad dealer.◁

– without LED rear light OA

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



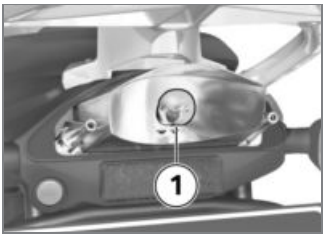
- Remove screws **1**.
- Pull the bulb housing to the rear to remove.



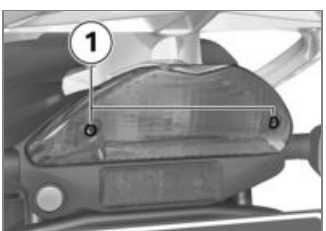
- Press bulb **1** into its socket and turn it counter-clockwise to remove.
- Replace the defective bulb.

	Bulb for tail light/brake light
P21/5W / 12 V / 5 W / 21 W	

- Use a clean, dry cloth to hold the new bulb in order to keep the glass free of foreign matter.



- Press bulb **1** into its socket and turn it clockwise to install.



- Hold the bulb housing in position and install screws **1**.◁

Replace LED flashing turn indicators

– with LED turn indicators OE

- The LED flashing turn indicators can be replaced only as a complete unit. Consult a specialist workshop, preferably an authorised BMW Motorrad dealer.◁

Removing turn indicator bulbs, front and rear

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

- Remove screw **1**.

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

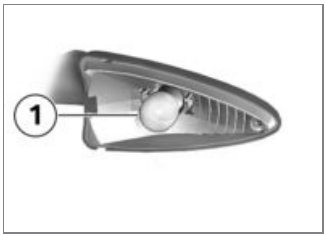
- Turn bulb **1** counter-clockwise and remove it from the bulb housing.

Installing turn indicator bulbs, front and rear

- Replace the defective bulb.

Bulbs for flashing turn indicators, front
RY10W / 12 V / 10 W

- Use a clean, dry cloth to hold the new bulb in order to keep the glass free of foreign matter.



- Turn bulb **1** clockwise to install it in the bulb housing.

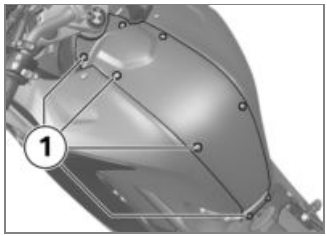
- Working from the inboard side, insert the glass into the bulb housing and close the housing.

- Install screw **1**.

Body panels

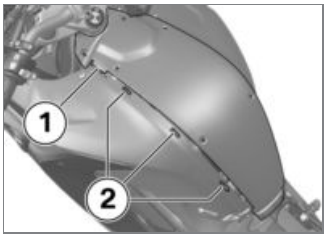
Removing centre trim panel

- Removing seat (➠ 47).

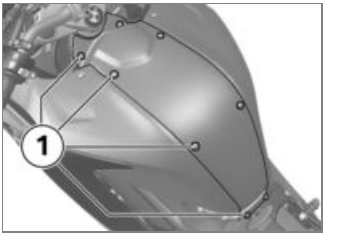


- Remove four screws **1** on left and right and remove the centre trim panel.

Installing centre trim panel



- Slip the centre trim panel underneath the left and right side panels at position **1** and then seat it in guides **2** on left and right.



Damage to the paintwork as a result of screw connections.
For painted components, plastic discs should be inserted under the screw heads.◀

- Install four screws **1** on left and right.

	Trim panels
2 Nm	

- Install the seat (➠ 48).

Jump-start

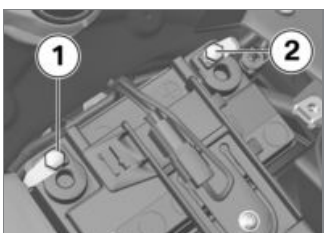
The wires leading to the power socket do not have a load-capacity rating adequate for jump-starting the engine. Excessively high current can lead to a cable fire or damage to the vehicle electronics.
Do not use the on-board socket to jump-start the engine of the motorcycle.◀

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

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

donor vehicle has a voltage rating of 12 V.◀

- Removing centre trim panel (➠ 97).
- When jump-starting the engine, do not disconnect the battery from the on-board electrical system.



- 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 (positive on this vehicle: position **2**).
- Then connect one end of the black jump lead to the negative terminal of the donor battery and the other end to the negative terminal of the discharged battery (negative on this vehicle: position **1**).
- 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.

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

- Installing centre trim panel (➠ 98).

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.
Connect a float charger to the battery if the motorcycle is to remain out of use for more than four weeks.◀

BMW Motorrad has developed a float 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

- Disconnect devices plugged into the sockets.

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

Only chargers suitable for this mode of charging can be used to recharge the battery via the on-board socket. Unsuitable chargers could cause damage to the motorcycle's on-board electrics.
Use suitable BMW chargers. The suitable charger is available from your authorised BMW Motorrad dealer.◀

If you switch on the ignition and the multifunction display and indicator lights fail to light up, the battery is completely flat (battery voltage is less than 9 V). Attempting to charge a completely flat battery via the extra socket can cause damage to the motorcycle's electronics.
If a battery has discharged to the extent that it is completely flat, it has to be disconnected from the on-board circuits and charged with the charger connected directly to the battery posts.◀

- Charge via the power socket, with the battery connected to the motorcycle's on-board electrical system.

The motorcycle's on-board electronics know when the battery is fully charged. The

on-board socket is switched off when this happens.◀

- Comply with the operating instructions of the charger.

▷ If you are unable to charge the battery through the on-board 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.
- After charging, remove the pole terminal of the charger from the battery posts.

▷ 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.◀

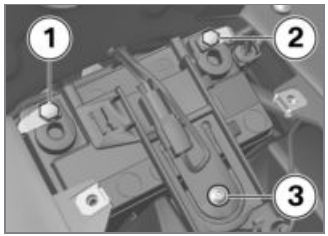
Removing battery

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

– with anti-theft alarm OE

- If applicable, switch off the anti-theft alarm.◁

- Switch off the ignition.
- Removing centre trim panel (⇒ 97).



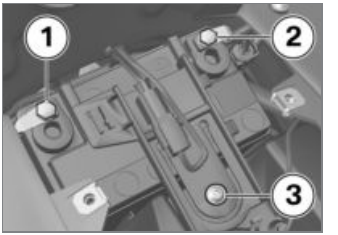
⚠ Disconnection in the wrong sequence increases the risk of short-circuits.
Always proceed in the correct sequence.◀

- Disconnect negative lead **1** first.
- Then disconnect positive lead **2**.
- Remove screw **3** and remove the battery holder.
- Lift the battery up and out; work it slightly back and forth if it is difficult to remove.

Installing battery

If the battery was disconnected from the motorcycle for a prolonged period of time it will be necessary to enter the current date in the instrument panel, in order to ensure that the service-due indicator functions correctly.
If you want to have the date set consult a specialist workshop, preferably an authorised BMW Motorrad dealer.◀

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

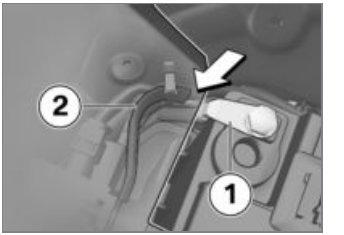


- Slip the battery holder over the battery and install screw **3**.

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

- Connect positive lead **2** to the battery's positive terminal.
- Connect negative lead **1** to the battery's negative terminal.

Cable harness on the battery
5 Nm



- Please ensure that the battery minus line **1** has sufficient clearance from the **arrow** to the relay carrier **2**.
- Installing centre trim panel (➠ 98).
- Setting clock (➠ 33).

General instructions

BMW Motorrad cannot examine or test each product of outside origin to ensure that 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.◀

BMW has conducted extensive testing of the parts and accessory products to establish that they are safe, functional and suitable. Consequently, BMW accepts product liability. BMW accepts no liability whatsoever for parts and accessories that it has not approved.

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

Your BMW Motorrad dealer can offer expert advice on the choice of genuine BMW parts, accessories and other products.

You can examine all the optional accessories from BMW Motorrad by visiting our website: **"www.bmw-motorrad.com"**.

Power sockets

Connection of electrical devices

– You can start using electrical devices connected to the motorcycle's sockets only when the ignition is switched on.

Cable routing

– The cables from the power sockets to the auxiliary devices must be routed in such a way that they do not impede the rider.
– The cable routing should not restrict the steering angle or obstruct handling.
– The cables must not be trapped.

Automatic shutdown

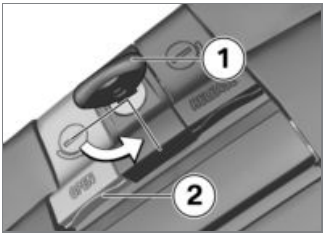
– The sockets will be automatically switched off during the start procedure.
– The power supply to the sockets is switched off no more than 15 minutes after the ignition is switched off, in order to prevent overloading of the on-board electrics. Low-wattage electrical accessories might not

be recognised by the vehicle's electronics. In such cases, power sockets are switched off very shortly after the ignition is turned off.
– If the battery charge state is too low to maintain the motorcycle's start capability, the power sockets are switched off.
– The power sockets are also switched off when the maximum load capability as stated in the technical data is exceeded.

Cases

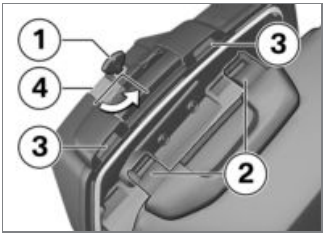
– with case OA

Opening cases



- Turn the key **1** to position OPEN.
- Pull the grey release leaver **2** (OPEN) all the way up and simultaneously open the case lid.

Closing cases

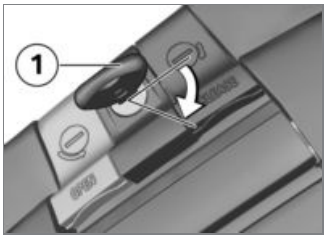


- Turn the key **1** to position OPEN.
- Press catches **2** of the case lid into retainers **3**. Check that nothing is trapped between the lid and the case.
- Pull the grey release lever **4** (OPEN) all the way up and simultaneously open the case lid.

» The lid engages with an audible click.

- Turn the key **1** in the case lock so that it is parallel with the direction of travel and remove.

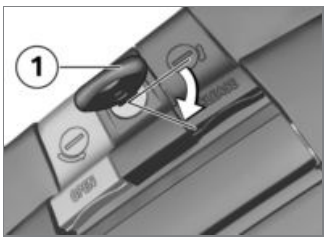
Removing cases



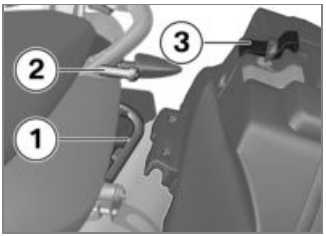
- Turn the key **1** to position RELEASE.

- Pull the black release lever **1** (RELEASE) up and simultaneously pull the case out.
- Then lift the case out of the bottom holder.

Installing cases

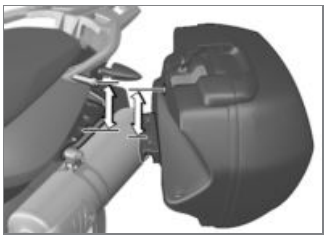


- Turn the key **1** to position RELEASE.



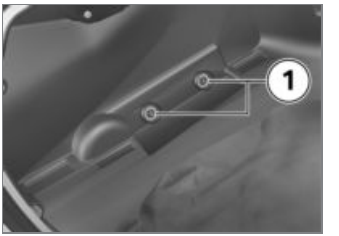
- Position the case in case holder **1**, then pivot it until it is seated at mount **2**.
- Pull the black release lever **3** (RELEASE) up and simultaneously push the case into the upper holder **2**.
- Push black release lever **3** (RELEASE) down until it engages.
- Turn the key in the case lock so that it is parallel with the direction of travel and remove.

Secure attachment



If a case wobbles or is difficult to fit, it has to be adapted to the gap between the top and bottom holders.

Inadequately secured cases can impair road safety. Cases may not wobble and must be secured free from play. The retainer has to be adjusted if play develops over the course of time.◀



Screws **1** inside the case allow you to make this adjustment.

Topcase

– with topcase OA

Opening topcase

- Turn key **1** in the topcase lock to the OPEN position.

- Push lock barrel **1** forward.

» Lever **2** pops up.

- Pull the release lever all the way up.

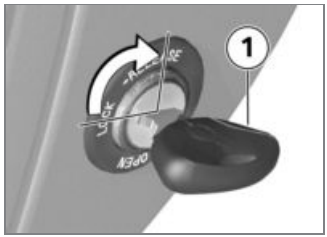
» The lid of the topcase opens.

Closing topcase

- Pull release lever **1** all the way up.
- Close the lid of the topcase and hold it down. Check that nothing is trapped between the lid and the case.

- Push release lever **1** down until it engages.
- Turn the key in the topcase lock to the LOCK position and remove the key from the lock.

Removing the topcase



- Turn key **1** in the topcase lock to the RELEASE position.

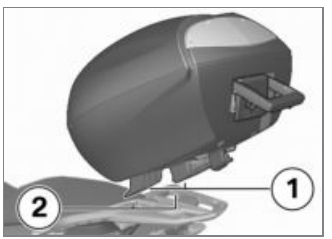
» The handle pops out.

- Pull handle **1** up as far as it will go.

- Lift the topcase at the rear and remove it from the luggage carrier.

Installing topcase

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



- Hook the topcase into position on the luggage carrier. Make sure that hooks **1** are securely seated in the corresponding keepers **2**.

- Push handle **1** down until it engages.
- Turn the key in the topcase lock to the LOCK position and remove the key from the lock.

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 the vehicle

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 vehicle.

To prevent stains, do not wash the vehicle immediately after it has been exposed to strong sunlight and do not wash it in the sun.

The motorcycle should particularly be washed frequently during the winter months.

To remove road salt, clean the motorcycle with cold water immediately after every trip.

Warm water intensifies the effect of salt.

Use only cold water to wash off road salt.◀

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 brake discs and brake pads have dried out.◀

The high pressure of high-pressure cleaners (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.◀

Aluminium cases and topcases do not have a surface coating. Care in accordance with the instructions set out below will help ensure the best possible appearance:

Remove road salt and corrosive deposits by cleaning with cold water immediately after every trip.◀

Cleaning easily damaged components

Plastics

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

Body panels

Clean the trim panels with water and BMW plastic care emulsion.

Windscreen and headlight lens plastic

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

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

Chrome parts

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

Radiator

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

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

Rubber components

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 care products that contain silicon.◀

Paint care

Washing the vehicle regularly will help prevent damage to the paintwork, especially if your vehicle is ridden in areas with high air pollution or natural sources of dirt, for example tree resin or pollen.
However, particularly aggressive substances (e.g. spilt fuel, oil, grease, brake fluid and bird droppings) must be removed immediately, as the paint could otherwise be affected or become discoloured. We recommend BMW Motorrad 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 im-

mediately, using cleaning-grade benzene or petroleum spirit on a clean cloth or ball of cotton wool. BMW Motorrad recommend that specks of tar be removed with BMW tar remover and the parts treated with this product should subsequently be waxed.

Protective wax coating

If water is no longer forming beads on the paint surface, it must be waxed.
BMW Motorrad recommends applying only BMW car wax or products containing carnauba wax or synthetic wax.

Laying up the motorcycle

- Fill the motorcycle's fuel tank.
- Clean the motorcycle.
- Removing battery (➠ 101).
- Spray the brake and clutch lever pivots, the side stand pivots and the centre stand pivots (if the motorcycle is fitted with a centre stand) 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 (preferably using front-wheel and rear-wheel stands).

Restoring motorcycle to use

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

Troubleshooting chart

Engine does not start or is difficult to start:

Possible cause	Rectification
Kill switch activated	Set kill switch to operating position (run).
Side stand extended and gear engaged	Select neutral or retract the side stand.
Gear engaged and clutch not disengaged	Select neutral or pull the clutch lever.
No fuel in tank	Refuelling (➠ 67).
Battery flat	Charging battery when connected (➠ 100).

Threaded fasteners

Front wheel	Value	Valid
Brake caliper on fork leg		
M10 x 1.25 x 35 - 10.9	30 Nm	
Clamp of quick-release axle		
M8 x 30	**Tighten screws six times in alternate sequence**	
	19 Nm	
Quick-release axle in telescopic forks		
M24 x 1.5	50 Nm	

Rear wheel	Value	Valid
Rear wheel to drive shaft		
M10 x 1.25 x 40	**tighten in a crosswise sequence**	
	60 Nm	

Engine

Engine design	Twin-cylinder 4-stroke engine, DOHC steering, 4 valves operated by rocker arm, liquid cooling for cylinder and cylinder head, integrated coolant pump, 6-speed gearbox and dry-sump lubrication
Displacement	798 cm^3
Cylinder bore	82 mm
Piston stroke	75.6 mm
Compression ratio	12 : 1
Nominal output	66 kW, at engine speed: 8000 min^{-1}
– with reduced power output, 25 kW^{OE}	25 kW, at engine speed: 7000 min^{-1}
– with reduced power output, 35 kW^{OE}	35 kW, at engine speed: 6750 min^{-1}
Torque	86 Nm, at engine speed: 5800 min^{-1}
– with reduced power output, 25 kW^{OE}	55 Nm, at engine speed: 3500 min^{-1}
– with reduced power output, 35 kW^{OE}	69 Nm, at engine speed: 3500 min^{-1}
Maximum engine speed	max 9000 min^{-1}
Idle speed	1250^{+50} min^{-1}, vehicle at standstill

Fuel

Recommended fuel grade	Super unleaded, (max. 10 % Ethanol, E10) 95 ROZ/RON 89 AKI
Usable fuel capacity	approx. 15 l
Reserve fuel	approx. 4 l

Engine oil

Engine oil, capacity	approx. 3 l, with filter change
Specification	SAE 15W-50, API SJ / JASO MA2, additives (e.g. molybdenum-based) are not permissible because they can attack coated components of the engine, BMW Motorrad recommends BMW Motorrad ADVANTEC Pro oil, SAE 15W-50
Oil additives	BMW Motorrad recommends not using oil additives, because they can have a detrimental effect on clutch operation. Please do not hesitate to contact your authorised BMW Motorrad dealer if you have any questions relating the choice of a suitable engine oil for your motorcycle.

BMW recommends ADVANTEC ORIGINAL BMW ENGINE OIL

Clutch

Clutch type	Multiplate clutch running in oil bath

Transmission

Gearbox type	Claw-shift 6-speed transmission, integrated into engine block
Gearbox transmission ratios	1.943 (35/68 teeth), Primary transmission ratio 1:2.462 (13/32 teeth), 1st gear 1:1.750 (16/28 teeth), 2nd gear 1:1.381 (21/29 teeth), 3rd gear 1:1.174 (23/27 teeth), 4th gear 1:1.042 (24/25 teeth), 5th gear 1:0.960 (25/24 teeth), 6th gear

Rear-wheel drive

Type of final drive	Belt drive with damper in special housing

Running gear

Front wheel	
Type of front suspension	Telescopic forks
Spring travel, front	125 mm, at wheel
Rear wheel	
Type of rear suspension	Single-arm cast light-alloy swinging arm with cam-adjustable rear wheel axle
Type of rear suspension	Direct-acting central spring strut with adjustable rebound stage damping/spring preload
– with Electronic Suspension Adjustment (ESA) OE	Direct-acting central spring strut with adjustable spring preload/electrically adjustable rebound stage damping
Spring travel at rear wheel	125 mm, at wheel

Brakes

Front wheel	
Type of front brake	Hydraulically operated twin disc brake with 4-piston fixed calipers and floating brake discs
Brake-pad material, front	Sintered metal
Rear wheel	
Type of rear brake	Hydraulically actuated 1-piston floating caliper with fixed brake disc
Brake-pad material, rear	Sintered metal

Wheels and tyres

Recommended tyre sets	You can obtain an up-to-date list of approved tyres from your authorised BMW Motorrad dealer or on the Internet at "www.bmw-motorrad.com".
Front wheel	
Front wheel type	Cast aluminium, MT H2
Front wheel rim size	3.50" x 17"
Tyre designation, front	120/70 ZR 17

Rear wheel	
Rear-wheel type	Cast aluminium, MT H2
Rear wheel rim size	5.5" x 17"
Tyre designation, rear	180/55 ZR 17
Tyre pressure	
Tyre pressure, front	2.5 bar, tyre cold
Tyre pressure, rear	2.9 bar, tyre cold

Electrics

Electrical rating of on-board sockets	5 A
Fuses	Electronic fuses protect all the circuits. If an electronic fuse trips and de-energises a circuit, the circuit is active as soon as the ignition is switched on after the fault has been rectified.
Battery	
Battery type	AGM (Absorbent Glass Mat) battery
Battery rated voltage	12 V
Battery rated capacity	12 Ah

Spark plugs	
Spark plugs, manufacturer and designation	NGK DCPR 8 E
Electrode gap of spark plug	0.8...0.9 mm, when new
Lighting	
Bulb for high-beam headlight	H7 / 12 V / 55 W
Bulbs for the low-beam headlight	H7 / 12 V / 55 W
Bulb for parking light	W5W / 12 V / 5 W
Bulb for tail light/brake light	P21/5W / 12 V / 5 W / 21 W
Bulbs for flashing turn indicators, front	RY10W / 12 V / 10 W
Bulbs for flashing turn indicators, rear	RY10W / 12 V / 10 W

Frame

Frame type	Cast light alloy weldment with bolt-on rear frame
Type plate location	Steering head, right
Position of the Vehicle Identification Number	Steering head, right

Dimensions

Length of motorcycle	2156 mm
Height of motorcycle	1250 mm, without rider at unladen weight, to top edge of windscreen
Width of motorcycle	905 mm, across mirrors
Front-seat height	800 mm, without rider at unladen weight
– with comfort seat OE	820 mm, without rider at unladen weight
– with dual seat, low OE	765 mm, without rider at unladen weight
Rider's inside-leg arc, heel to heel	1835 mm, without rider at unladen weight
– with comfort seat OE	1860 mm, without rider at unladen weight
– with dual seat, low OE	1755 mm, without rider at unladen weight

Weights

Unladen weight	213 kg, DIN unladen weight, ready for road, 90 % load of fuel, without optional extras
Permissible gross weight	420 kg
Maximum payload	207 kg

Riding specifications

Top speed	>200 km/h
– with reduced power output, 25 kW[OE]	approx. 155 km/h
– with reduced power output, 35 kW[OE]	approx. 170 km/h

BMW Motorrad Service

BMW Motorrad has an extensive network of dealerships in place to look after you and your motorcycle in more than 100 countries. Authorised BMW Motorrad dealerships have the technical information and the technical know-how to reliably carry out all maintenance and repair work on your BMW.
Visit our website www.bmw-motorrad.com to find out where the nearest authorised BMW Motorrad dealership is located.

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.◀

In order to help ensure that your BMW is always in optimum condition, BMW Motorrad recommends compliance with the maintenance intervals specified for your motorcycle. Have all maintenance and repair work carried out confirmed in the "Service" chapter in this manual. For generous treatment of claims submitted after the warranty period has expired, evidence of regular maintenance is essential.

Your authorised BMW Motorrad dealer can provide information on BMW services and the work undertaken as part of each service.

BMW Motorrad Mobility services

As owner of a new BMW motorcycle, in circumstances in which assistance is required you can benefit from the protection afforded by the various BMW Motorrad mobility services (e.g. Mobile Service, breakdown service, vehicle recovery service). Your authorised BMW Motorrad dealer will be happy provide information about the mobility services available to you.

Maintenance work

BMW Pre-delivery Check

Your authorised BMW Motorrad dealer conducts the BMW pre-delivery check before handing over the vehicle to you.

BMW Running-in Check

The BMW running-in check has to be performed when the vehicle has covered between 500 km and 1200 km.

BMW Service

The BMW Service is carried out once a year; the extent of servicing can vary, depending on the age of the vehicle and the distance it has covered. Your authorised BMW Motorrad dealer confirms that the service work has been carried out and enters the date when the next service will be due.

Riders who cover long distances in a year might have to bring in their vehicles for service before the next scheduled date. It is to allow for these cases that a maximum odometer reading is entered as well in the confirmation of service. Servicing has to be brought forward if this odometer reading is reached before the next scheduled date for the service.

The service-due indicator in the multifunction display reminds you about one month or 1000 km in advance when the time for a service is approaching, on the basis of the programmed values.

Confirmation of maintenance work

BMW Pre-delivery Check

Completed

on_____

Stamp, signature

BMW Running-in Check

Completed

on_____

Odometer reading_____

Next service
at the latest

on_____
or, if logged beforehand,

Odometer reading_____

Stamp, signature

BMW Service
Completed

on

Odometer reading

Next service
at the latest

on
or, if logged beforehand,

Odometer reading

Stamp, signature

BMW Service
Completed

on

Odometer reading

Next service
at the latest

on
or, if logged beforehand,

Odometer reading

Stamp, signature

BMW Service
Completed

on

Odometer reading

Next service
at the latest

on
or, if logged beforehand,

Odometer reading

Stamp, signature

BMW Service
Completed

on_____

Odometer reading_____

Next service
at the latest

on_____
or, if logged beforehand,

Odometer reading_____

Stamp, signature

BMW Service
Completed

on_____

Odometer reading_____

Next service
at the latest

on_____
or, if logged beforehand,

Odometer reading_____

Stamp, signature

BMW Service
Completed

on_____

Odometer reading_____

Next service
at the latest

on_____
or, if logged beforehand,

Odometer reading_____

Stamp, signature

BMW Service
Completed

on_____

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Next service
at the latest

on_____
or, if logged beforehand,

Odometer reading_____

Stamp, signature

BMW Service
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Next service
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or, if logged beforehand,

Odometer reading_____

Stamp, signature

BMW Service
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on_____

Odometer reading_____

Next service
at the latest

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or, if logged beforehand,

Odometer reading_____

Stamp, signature

BMW Service
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Next service
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Odometer reading_____

Stamp, signature

BMW Service
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Odometer reading_____

Stamp, signature

BMW Service
Completed

on_____

Odometer reading_____

Next service
at the latest

on_____
or, if logged beforehand,

Odometer reading_____

Stamp, signature

Confirmation of service

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

Item	Odometer reading	Date

Item	Odometer reading	Date

Appendix

Certification Tire Pressure Control (TPC)

FCC ID: MRXBC54MA4 IC: 2546A-BC54MA4	FCC ID: MRXBC5A4 IC: 2546A-BC5A4

This device complies with Part 15 of the FCC Rules and with Industry Canada license-exempt RSS standard(s).
Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and
(2) This device must accept any interference received, including interference that may cause undesired operation.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

(1) l'appareil ne doit pas produire de brouillage, et
(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

WARNING: Changes or modifications not expressively approved by the party responsible for compliance could void the user's authority to operate the equipment. The term “IC:” before the radio certification number only signifies that Industry Canada technical specifications were met.

Details described or illustrated in this booklet may differ from the vehicle'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.

Original rider's manual, printed in Germany.

Important data for refuelling.

Fuel	
Recommended fuel grade	Super unleaded, (max. 10 % Ethanol, E10) 95 ROZ/RON 89 AKI
Usable fuel capacity	approx. 15 l
Reserve fuel	approx. 4 l
Tyre pressure	
Tyre pressure, front	2.5 bar, tyre cold
Tyre pressure, rear	2.9 bar, tyre cold

BMW recommends ADVANTEC ORIGINAL BMW ENGINE OIL

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