

BMW Motorrad



The Ultimate  
Riding Machine

# Rider's Manual F 800 GS Adventure

## Motorcycle data/dealership details

### Motorcycle data

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Model

---

Vehicle identification number

---

Colour code

---

Date of first registration

---

Registration number

### Dealership details

---

Person to contact in Service department

---

Ms/Mr

---

Phone number

---

Dealership address/phone number (company stamp)

## Welcome to BMW

We congratulate you on your choice of a motorcycle from BMW and welcome you to the community of BMW riders.

Familiarise yourself with your new motorcycle so that you can ride it safely and confidently in all traffic situations.

Please read this Rider's Manual carefully before starting to use your new BMW motorcycle. It contains important information on how to operate the controls and how to make the best possible use of all your BMW's technical features.

In addition, it contains information on maintenance and care to help you maintain your vehicle's reliability and safety, as well as its value.

If you have questions concerning your motorcycle, your authorised

BMW Motorrad dealer will gladly provide advice and assistance.

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

BMW Motorrad.

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

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## 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. To first read an overview of your motorcycle, please go to chapter 2. All maintenance and servicing work on the motorcycle is documented in Chapter 11. 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 extra  
The motorcycles are assembled complete with all the BMW Motorrad optional extras originally ordered.

OA

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

- EWS Electronic immobiliser.
- DWA Anti-theft alarm (Diebstahlwarnanlage)
- ABS Anti-lock brake system
- ASC Automatic Stability Control.
- ESA Electronic Suspension Adjustment.

## Equipment

When you ordered your BMW motorcycle, you chose various items of custom equipment. This Rider's Manual describes optional extras (OE) offered by BMW and selected optional accessories (OA). This explains why the manual may also contain descriptions of equipment which you have not ordered. Please note, too, that your motorcycle might not be exactly as illus-

trated 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.

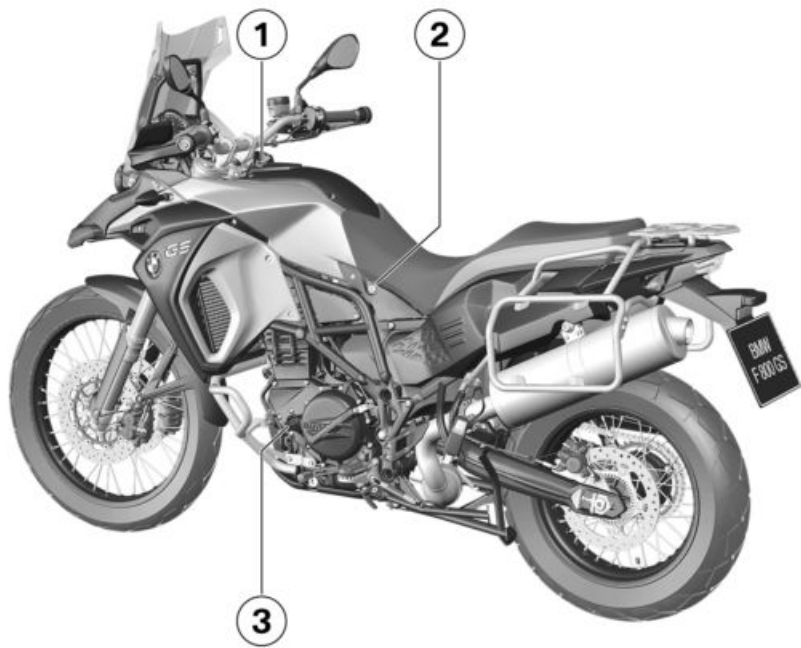
## Technical data

All dimensions, weights and power ratings stated in the 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.

## Actuality

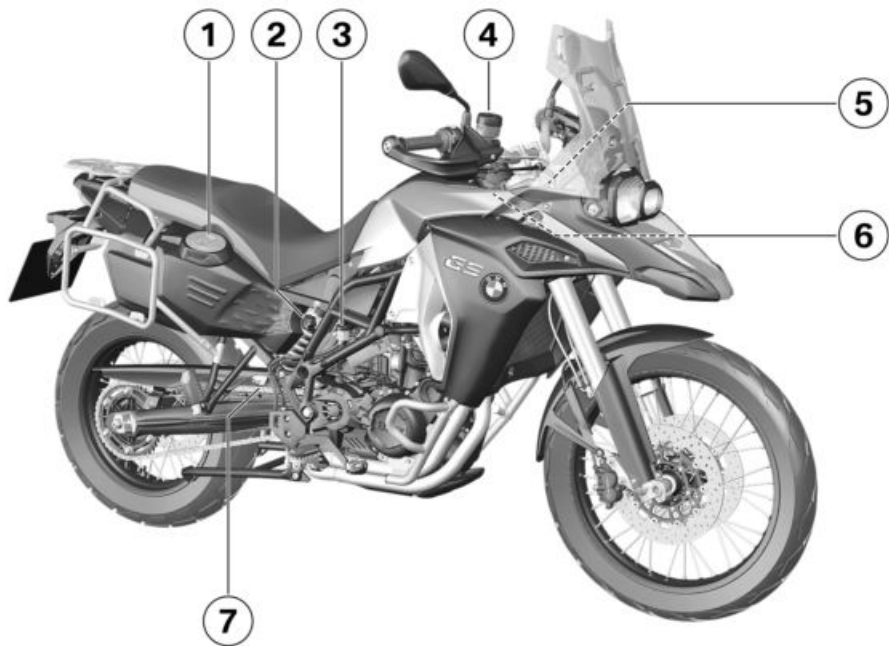
The high safety and quality standards of BMW motorcycles are maintained by constant development work on designs, equipment and accessories. Because of this, your motorcycle may differ from the information supplied in the Rider's Manual.

Nor can BMW Motorrad entirely rule out errors and omissions. We hope you will appreciate that no claims can be entertained on the basis of the data, illustrations or descriptions in this manual.



## General view, left side

- 1 Power socket (102)
- 2 Seat lock (50)
- 3 Engine-oil filler neck and oil dipstick (70)

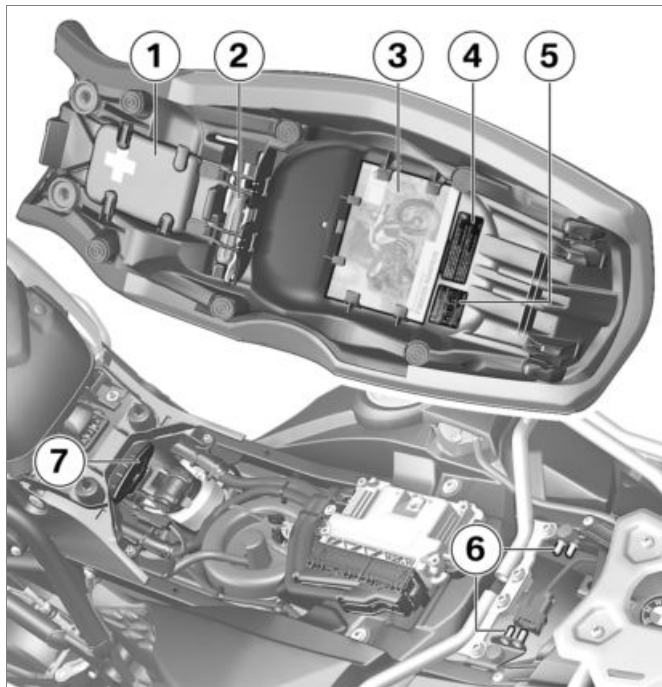


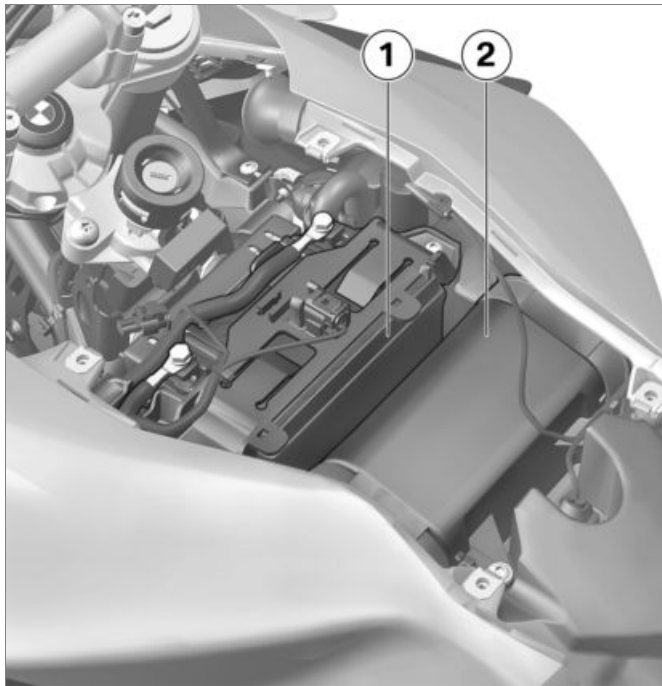
## General view, right side

- 1 Tank filler cap (▮▮▮ 61)
- 2 Adjuster, spring preload (▮▮▮ 45)
- 3 Brake-fluid reservoir, rear (▮▮▮ 74)
- 4 Brake-fluid reservoir, front (▮▮▮ 73)
- 5 VIN, type plate (on steering-head bearing)
- 6 Coolant level indicator (behind side panel) (▮▮▮ 75)
- 7 Adjuster for damping characteristic (▮▮▮ 46)

## Underneath the seat

- 1 Stowage  
– with first-aid kit <sup>OA</sup>  
Location of the first-aid kit
- 2 Standard toolkit (► 69)
- 3 Rider's Manual
- 4 Payload table
- 5 Table of tyre pressures
- 6 Helmet holder (► 50)
- 7 Tool for adjusting spring preload (► 45)



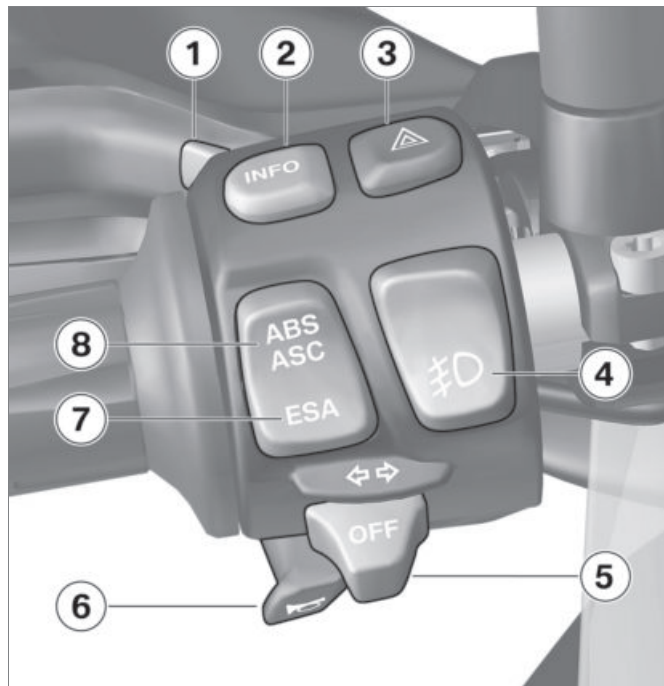


## Underneath the trim panel

- 1 Battery (➡ 98)
- 2 Air-filter housing (➡ 96)

## Multifunction switch, left

- 1 High-beam headlight and headlight flasher (➡ 36)
- 2 Select display (➡ 32).  
– with on-board computer<sup>OE</sup>  
Reset the average values (➡ 33).
- 3 Hazard warning flashers (➡ 37)
- 4 No standard equipment  
– with LED auxiliary headlights<sup>OE</sup>  
Auxiliary headlights (➡ 36)
- 5 Turn indicators (➡ 37)
- 6 Horn
- 7 No standard equipment  
– with Electronic Suspension Adjustment (ESA)<sup>OE</sup>  
ESA (➡ 47)

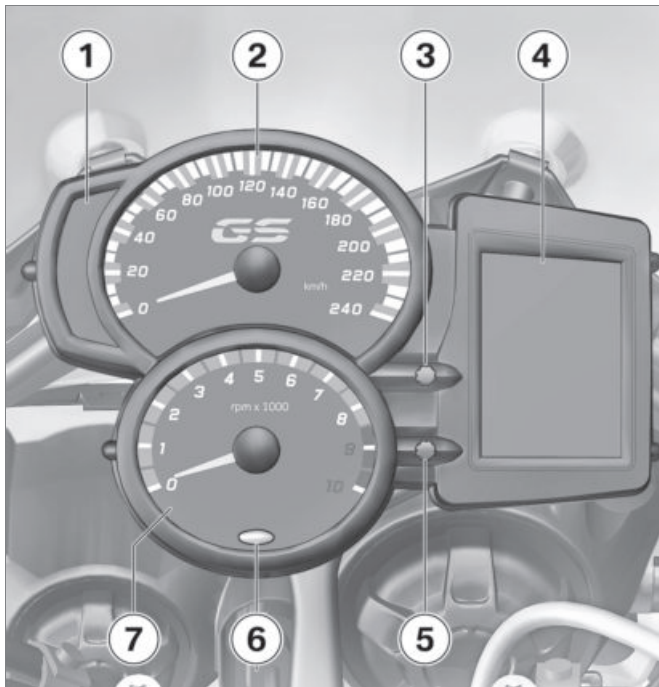


- 8**    ABS (➡ 39)  
      – with Automatic Stability  
      Control (ASC)<sup>OE</sup>  
      ASC (➡ 40)

## Multifunction switch, right

- 1** No standard equipment  
– with heated handlebar grips<sup>OE</sup>  
Heated handlebar grips (➡ 38).
- 2** No standard equipment  
– with off-road mode ABS and ASC<sup>OE</sup>  
Off-road mode (➡ 41)
- 3** Starter (➡ 54)
- 4** Emergency off switch (kill switch) (➡ 38)

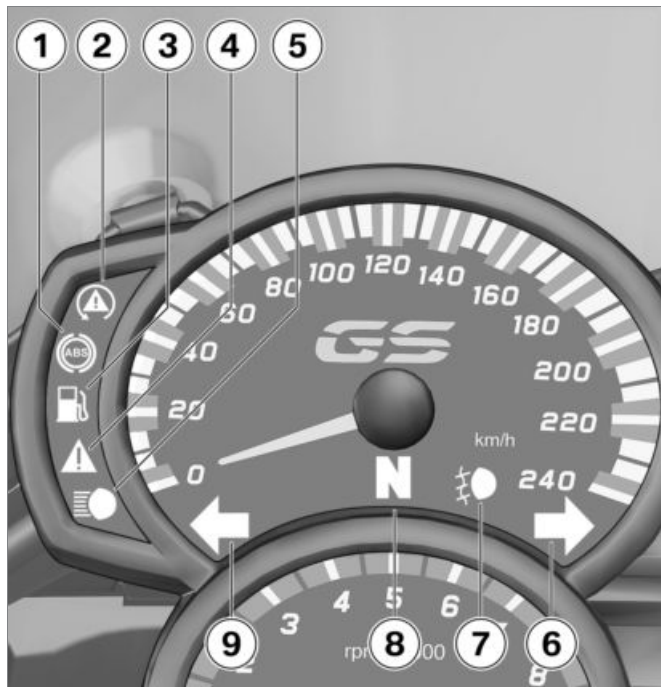




## Instrument panel

- 1** Warning and telltale lights (➡ 17)
- 2** Speedometer
- 3** Set clock (➡ 31).  
– with on-board computer<sup>OE</sup>  
Operation of the stopwatch (➡ 34)
- 4** Multifunction display (➡ 19)
- 5** Select display (➡ 32).  
Reset tripmeter (➡ 33).
- 6** Ambient-light brightness sensor (for controlling the brightness of the instrument lighting)  
– with anti-theft alarm (DWA)<sup>OE</sup>  
Anti-theft alarm telltale light (see the instructions for use for the anti-theft alarm)  
– with on-board computer<sup>OE</sup>  
Redline warning (➡ 57)





## Warning and telltale lights

- 1** ABS (► 25)
- 2** No standard equipment  
– with Automatic Stability Control (ASC)<sup>OE</sup>  
ASC (► 26)
- 3** Fuel reserve (► 27)  
(► 23)
- 4** General warning light (in combination with warnings in the display) (► 20)
- 5** High-beam headlight
- 6** Flashing turn indicators, right
- 7** No standard equipment  
– with LED auxiliary headlights<sup>OE</sup>  
Auxiliary headlights (► 36)
- 8** Idle
- 9** Flashing turn indicators, left



The ABS symbol might differ, depending on the specifics of national regulations.◀



## Multifunction display

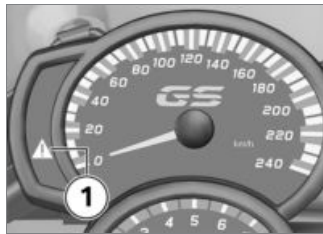
- 1 Warning for engine electronics (→ 24)
- 2 No standard equipment – with heated handlebar grips<sup>OE</sup>  
Display showing chosen level of grip heating (→ 38)
- 3 No standard equipment – with on-board computer<sup>OE</sup>  
Stopwatch (→ 34)
- 4 Time (→ 31)
- 5 Warning for coolant temperature (→ 23)
- 6 Service due (→ 28)
- 7 Value range of the milometer (→ 32)

- 8** No standard equipment  
– with on-board computer<sup>OE</sup>  
On-board computer readings (➡ 32)  
Symbols of the on-board computer (➡ 27)
- 9** Coolant temperature display
- 10** No standard equipment  
– with on-board computer<sup>OE</sup>  
Gear indicator; "N" indicates neutral
- 11** Fuel level (➡ 27)
- 12** No standard equipment  
– with off-road mode ABS and ASC<sup>OE</sup>  
Setting riding mode (➡ 41)
- 13** a warning is displayed within the value range of the milometer (➡ 20)
- 14** a trip odometer is displayed (➡ 32)

## 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 (➡ 32).

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

The possible warnings are listed on the next page.

## Warnings, overview

### Warning and telltale lights

### Warning symbols on the display

### Meaning

|                                                                                  |                  |                                                                                                                   |                                            |
|----------------------------------------------------------------------------------|------------------|-------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
|  | Lights up yellow |  + "EWS" appears on the display  | Electronic immobiliser active (►► 23)      |
|  | Lights up        |                                                                                                                   | Fuel down to reserve (►► 23)               |
|  | Lights up red    |  Flashes                         | Coolant temperature too high (►► 23)       |
|  | Lights up yellow |  Appears on the display          | Engine in emergency-operation mode (►► 24) |
|  | Lights up yellow |  + "LAMP" appears on the display | Bulb defective (►► 24)                     |
|                                                                                  |                  | "x . x °C" flashes                                                                                                | Outside temperature warning (►► 24)        |
|  | Lights up yellow |  + "dWA" appears on the display  | DWA battery flat (►► 25)                   |
|  | Flashes          |                                                                                                                   | ABS self-diagnosis not completed (►► 25)   |

| Warning and telltale lights                                                                    | Warning symbols on the display | Meaning                                 |
|------------------------------------------------------------------------------------------------|--------------------------------|-----------------------------------------|
|  Lights up     |                                | ABS deactivated (➡ 25)                  |
|  Lights up     |                                | ABS fault (➡ 25)                        |
|  Quick-flashes |                                | ASC intervention (➡ 26)                 |
|  Slow-flashes  |                                | ASC self-diagnosis not completed (➡ 26) |
|  Lights up     |                                | ASC deactivated (➡ 26)                  |
|  Lights up     |                                | ASC fault (➡ 26)                        |

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

## Fuel down to reserve



Warning light for fuel down to reserve shows.



A shortage of fuel can result in misfires. This can cause the engine to switch off unexpectedly (risk of accident) and damage 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

– min 2,7 l

- Refuel (|||||➡ 61).

## 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,

- Check coolant level (75). If the coolant level is too low.
- Top up coolant (76).
- Have the coolant system checked by a specialist workshop, preferably 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 specialist 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 en-

gine 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 defective bulb places your safety at risk because it is easier for other users to oversee the motorcycle. 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 (▮▮▮ 89).
- Replacing parking-light bulb (▮▮▮ 90).
- Replace LED for brake light and tail light (▮▮▮ 92).
- Remove turn indicator bulbs, front and rear (▮▮▮ 92).
- with LED auxiliary headlights<sup>OE</sup>
- Replace auxiliary headlights (▮▮▮ 94).

## Outside temperature warning

– with on-board computer<sup>OE</sup>

"x . x °C" (ambient temperature) flashes.

Possible cause:

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



The outside temperature warning does not mean that there is no risk of black 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.

## DWA battery flat

– with anti-theft alarm (DWA)<sup>OE</sup>



General warning light shows yellow.



+ "dWA" appears on the display.



This error message appears only briefly 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.

## 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 deactivated



ABS warning light shows.

Possible cause:

The rider has switched off the ABS system.

- Activate ABS function (▮▮▮▮ 40).

## ABS fault



ABS warning light shows.

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 (▮▮▮ 66).

- 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)<sup>OE</sup>



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)<sup>OE</sup>



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 3.1 mph (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 deactivated

- with Automatic Stability Control (ASC)<sup>OE</sup>



ASC warning light shows.

Possible cause:

The rider has switched off the ASC system.

- Activate ASC

## ASC fault

- with Automatic Stability Control (ASC)<sup>OE</sup>



ASC warning light shows.

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 situations that can lead to an ASC fault (▮▮▮ 67).
- 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<sup>OE</sup>



Distance travelled after fuel down to reserve (→ 27)



Average consumption



Average speed



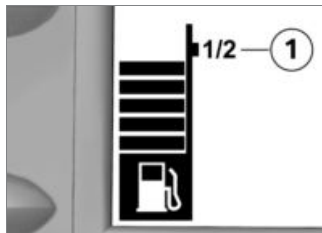
Current consumption



Ambient temperature (→ 28)

## 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 precisely.

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



After the fuel warning light comes on, the distance 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<sup>OE</sup>



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 read-

ing 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 outside temperature warning does not mean that there is no risk of black 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.◀

## 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.

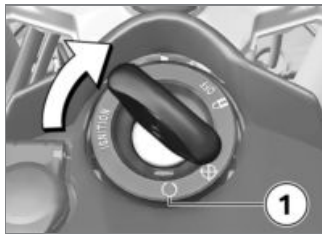
Please consult the information on the electronic immobiliser (EWS) if a key is lost or mislaid (► 31). Ignition switch/steering lock, fuel filler cap lock and seat lock are all operated with the same key.

- with aluminium case<sup>OA</sup>
- with aluminium topcase<sup>OA</sup>

If you wish you can arrange to have the aluminium cases and the aluminium 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.
  - » Engine can be started.
  - » Pre-ride check is performed. (► 55)
  - » ABS self-diagnosis is in progress. (► 55)

- with Automatic Stability Control (ASC)<sup>OE</sup>
  - » ASC self-diagnosis is performed. (► 56)◀

### Switching off ignition



- Turn the key to position **1**.
  - » Lights are switched off.
  - » Handlebars (steering lock) are not locked.
  - » Key can be removed.
  - » Electrically powered accessories remain operational for a limited period of time.
  - » The battery can be recharged via the charging socket.

## Locking 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/steering lock. 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 BMW Motorrad authorised 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

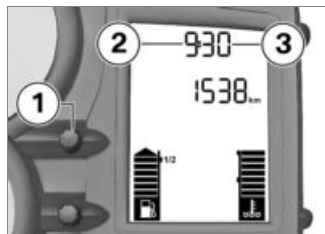
### Setting clock



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

Set the clock only when the motorcycle is stationary. ◀

- Switch on ignition (III 30).



- 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.

- Press and hold button **1** until the minutes number does not flash anymore.  
» This completes the setting process.

## Reading

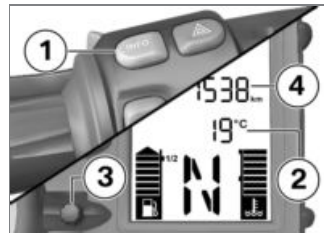
### Selecting display

- Switch on ignition (III 30).



- 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 on-board computer<sup>OE</sup>



- Press button **1** to select the reading in values area **2**.  
The following values can be displayed:



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**.

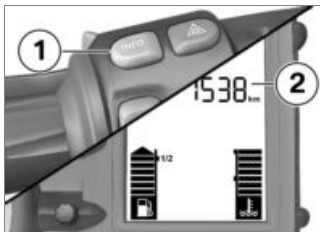
The following values can be displayed:

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

– Warnings, if applicable<

## Resetting tripmeter

- Switch on ignition (III 30).
- Select the desired tripmeter.



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

– with on-board computer<sup>OE</sup>



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

## Resetting the average values

– with on-board computer<sup>OE</sup>

- Switch on ignition (III 30).
- Select average consumption or average speed.



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

## Stopwatch

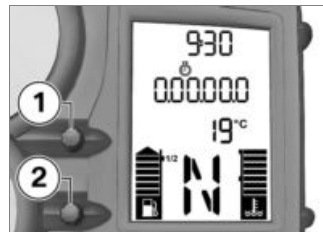
- with on-board computer<sup>OE</sup>

## Stopwatch



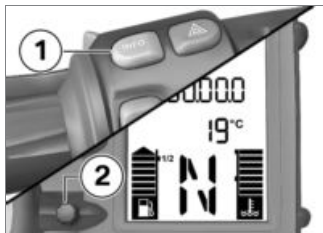
You can switch from the odometer reading to a stopwatch **1**. The readout is in hours, minutes, seconds and tenths of a second, with dots as separators. The stopwatch continues to time in the background if you switch back temporarily to the odometer reading. Similarly, the stopwatch continues timing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

## Operating stopwatch



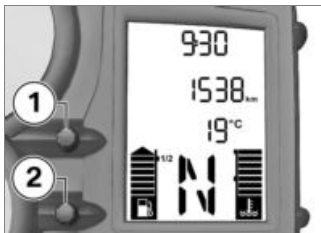
- If necessary, use button **1** to switch from the odometer to the stopwatch.
- When the stopwatch is stopped, press button **2** to start timing with the stopwatch.
- When the stopwatch is running, press button **2** to stop timing with the stopwatch.
- Press and hold down button **2** to reset the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



- Switch on ignition (III 30).
- 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. ◀

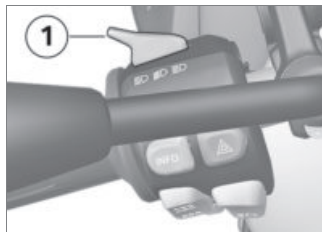
## Low-beam headlight

The low-beam headlight comes on automatically under the following conditions:

- If the engine is started
- If the vehicle is pushed while the ignition is on.

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

## 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 ignition (➡ 30).



- 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.

## Operating auxiliary headlights

- with LED auxiliary headlights<sup>OE</sup>
- Start engine (➡ 54).



- Press button **1** to switch on the auxiliary headlights.



The telltale light for the auxiliary headlights is on.

- » If the auxiliary headlights were turned on before the motor was switched off, they will be automatically switched back off.
- Press button **1** again to switch off the auxiliary headlights.

## Turn indicators

### Operating the flashing turn indicators



- Switch on ignition (III 30).
- 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

### Operating hazard warning flashers

- Switch on ignition (III 30).

 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)



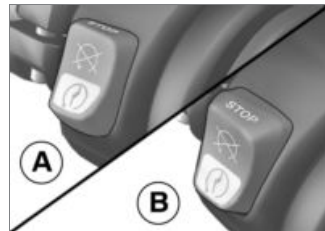
- 1** Emergency off switch (kill switch)



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<sup>OE</sup>

- Start engine (▶ 54).

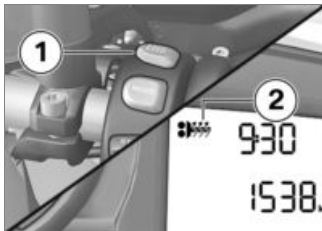


Grip heating can be activated only when the engine is running. ◀



The increase in power consumption caused by the grip heating can drain the battery if you are riding at low engine speeds. If the charge level

is low, grip heating is switched off to ensure the battery's starting capability.◀



- Repeatedly press button **1** until 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

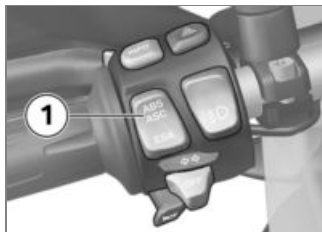
- » The selected heating stage will be saved if you allow a certain length of time to pass without making further changes.
- In order to switch off the heated grips, repeatedly press button **1** until the heated grip symbol **2** is no longer shown on the display.

## BMW Motorrad ABS Deactivating ABS function

- Switch on ignition (➡ 30).



Switch the ABS function off at standstill only.◀



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



ABS warning light shows.

– with Automatic Stability Control (ASC)<sup>OE</sup>

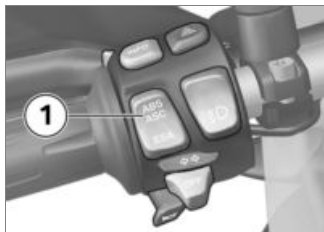
- » Initially, the ASC symbol changes status. Press and hold down button **1** until the ABS warning light responds. Under these circumstances there is no change in the ASC setting.◀
- Release button **1** within two seconds.



ABS warning light remains ON.

- » The ABS function is deactivated.

## Activating ABS function



- Switch on ignition (➡ 30).

▶ Switch the ABS function on at standstill only.◀

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



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

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



The ABS warning light remains off or continues to flash.

- » The ABS function is activated.
- You also have the option of switching the ignition off and then on again.



An ABS fault has occurred if the ABS 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.◀

## BMW Motorrad ASC

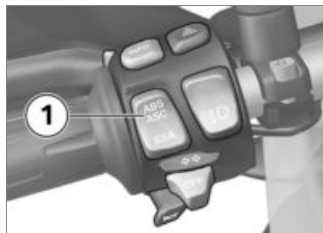
– with Automatic Stability Control (ASC)<sup>OE</sup>

## Deactivating ASC function

- Switch on ignition (➡ 30).



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 shows.

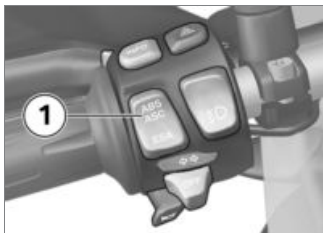
- Release button **1** within two seconds.



ASC warning light remains ON.

- » The ASC function is deactivated.

## Activating ASC function



- Switch on ignition (➡ 30).

 You have the option of activating 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 goes out; if self-diagnosis has not completed it starts flashing.

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



The ASC warning light remains off or continues to flash.

- » The ASC function is activated.
- 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.◀

## Riding mode

- with off-road mode ABS and ASC<sup>OE</sup>

### Riding mode

BMW Motorrad has developed two operational scenarios for your motorcycle from which you can select the scenario suitable for your situation:

- ROAD: On-road riding
- ENDURO: Off-road mode

The optimum wheel slip level is adjusted for every road surface for the ABS as well as ASC system.



Detailed information regarding the off-road mode can be found in the section entitled "Engineering details".◀

## Adjusting off-road mode

Prerequisite: On-road riding is active.

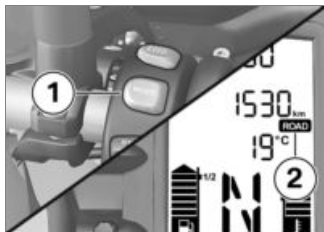


The off-road mode is not intended for normal on-road riding. Switching the off-road mode on during on-road riding can result in unstable riding conditions when braking in ABS or accelerating in ASC. This could cause a fall.

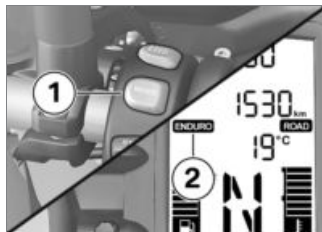
Switch the off-road mode on only during off-road riding.◀

- Switch on ignition (III 30).

▶ If a riding mode was selected prior to switching the ignition off, it remains further active after anew starting.◀



- Press button **1**.
  - » Mode adjustment is activated.
  - » Symbol for on-road riding **2** flashes.



- Operate button **1** again.
  - » Symbol for off-road mode **2** flashes.
  - » **While riding:** If the prerequisites for riding mode adjustments mentioned below are met, the off-road mode is activated:
    - Throttle twistgrip in idle position
    - Brake not applied
    - Clutch pulled
  - » **At standstill:** Activation takes place after approx. 2 seconds.
  - » Symbol for off-road mode **2** is continuously displayed.

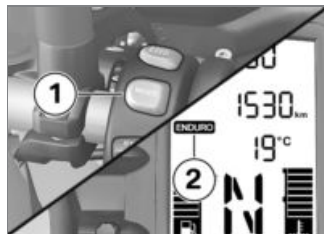
- » Symbol for on-road riding is suppressed.

## Adjust on-road riding

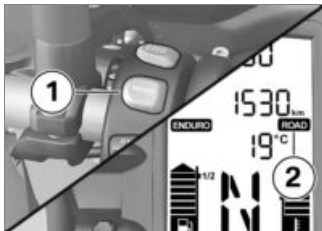
Prerequisite: Off-road mode is active.

- Switch on ignition (III 30).

▶ If a riding mode was selected prior to switching the ignition off, it remains further active after anew starting.◀



- Press button **1**.
  - » Mode adjustment is activated.
  - » Symbol for off-road mode **2** flashes.



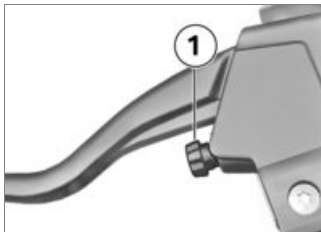
- Operate button **1** again.
- » Symbol for on-road riding **2** flashes.
- » **While riding:** If the prerequisites for riding mode adjustments mentioned below are met, the on-road mode is activated:
  - Throttle twistgrip in idle position
  - Brake not applied
  - Clutch pulled
- » **At standstill:** Activation takes place after approx. 2 seconds.
- » Symbol for on-road riding **2** is continuously displayed.

» Symbol for off-road mode is suppressed.

## Clutch

### Adjusting 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.

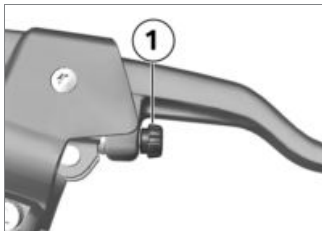
 The adjusting screw is easier to turn if you push the clutch lever forward.◀

## Brakes

### Adjusting the front brake 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 motorcycle 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 front brake lever and the handlebar grip.
- Turn adjusting screw **1** counter-clockwise to reduce the span between the front brake lever and the handlebar grip.

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

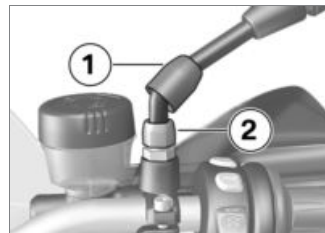
## Mirrors

### Adjusting mirrors



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

### Adjusting mirror arm



- Push protective cap **1** up over the threaded fastener on the mirror arm.
- Slacken nut **2**.
- Turn the mirror arm to the appropriate position.
- Tighten the nut to the specified tightening torque, while holding the mirror arm to ensure that it does not move out of position.



Locknut (mirror) to clamping piece

– 20 Nm

- Push the protective cap over the threaded fastener.

## Spring preload

### Adjustment

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

### Adjusting spring preload for rear wheel

- Remove seat (➡ 50).



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



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

Adjust the damping characteristic to suit spring preload.◀

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



Basic setting of spring preload, rear

- Turn the dial counter-clockwise as far as it will go (One-up riding without luggage)
- Turn the dial counter-clockwise as far as it will go, then make 12 clockwise rotations (One-up riding with luggage)
- Turn the dial clockwise as far as it will go (Two-up riding and luggage)

- Stow the on-board toolkit in its correct position.
- Install the seat (➡ 50).

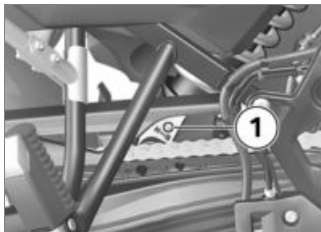
## Damping Adjustment

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

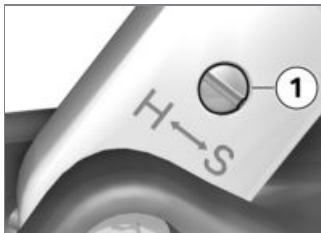
- An uneven surface requires softer damping than a smooth surface.
- An increase in spring preload requires firmer damping, a reduction in spring preload requires softer damping.

### Adjusting the damping for rear wheel

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



- Adjust the damping characteristic by turning adjusting screw **1**.



- If you want a harder damping characteristic, use a screwdriver to turn adjusting screw **1**

in the direction indicated by the H arrow.

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



Basic setting of rear-suspension damping characteristic

– without Electronic Suspension Adjustment (ESA)<sup>OE</sup>

– Turn the adjusting screw clockwise as far as it will go, then make 1.5 anti-clockwise rotations (One-up riding without luggage)

– Turn the adjusting screw clockwise as far as it will go, then make 1.5 anti-clockwise rotations (One-up riding with luggage)



Basic setting of rear-suspension damping characteristic

- Turn the adjusting screw clockwise as far as it will go, then make 1 anti-clockwise rotation (Passenger operation with luggage)◀

## Electronic Suspension Adjustment ESA

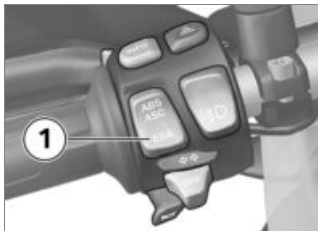
- with Electronic Suspension Adjustment (ESA)<sup>OE</sup>

### Possible settings

With the help of Electronic Suspension Adjustment (ESA), you can calibrate the rear-wheel damping to the terrain with ease. Three settings are available for damping.

### Calling up settings

- Switch on ignition (▶▶▶ 30).



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



The currently selected damping is shown on the multifunction

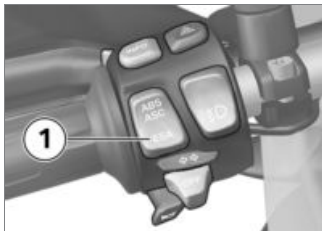
display at **1**. The meanings of the readings are as follows:

- COMF Comfortable damping characteristic
- NORM Normal damping characteristic
- SPORT Sporty damping characteristic

» The setting shows briefly, then disappears automatically.

### Adjusting the chassis and suspension

- Switch on ignition (▶▶▶ 30).



- 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.◀

 At high road speeds, tyre valves installed perpendicular to the wheel rim have a tendency to open.

In order to avoid sudden deflation, fit valves installed perpendicular to the rim with valve caps complete with rubber seals and make sure the valve caps are screwed firmly on to the valves.◀

- 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 |
| – 2.2 bar (one-up, tyre cold)                                                      |                      |
| – 2.4 bar (two-up and/or with luggage, tyre cold)                                  |                      |
|  | Tyre pressure, rear  |
| – 2.4 bar (one-up, tyre cold)                                                      |                      |
| – 2.8 bar (two-up and/or with luggage, 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.



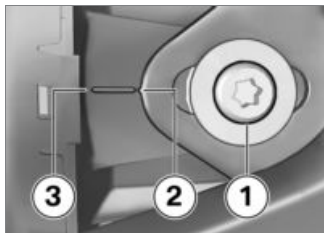
If there are doubts about the correct headlight range, seek the advice of a specialist workshop, preferably an authorised BMW Motorrad dealer.◀

### Adjusting headlight beam throw



- Slacken screws **1** on left and right.
- Adjust beam throw by tilting the headlight slightly about its horizontal axis.
- Tighten screws **1** on left and right.

## Beam-throw basic setting



- Slacken screws **1** on left and right.
- Tilt the headlight slightly about its horizontal axis until arrowhead **2** is pointing toward marker **3**.
- Tighten screws **1** on left and right.

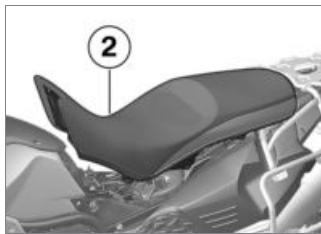
## Seat

### Removing seat

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



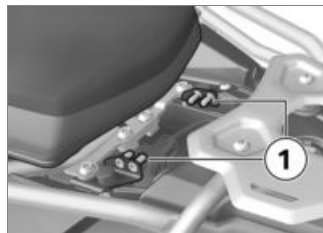
- Turn the key to the left in seat lock **1** and hold it in this position while pressing down the front part of the seat.



- Lift seat **2** at the front and release the key.

- Remove the seat and place it, rubber buffers down, on a clean surface.

### Installing the seat

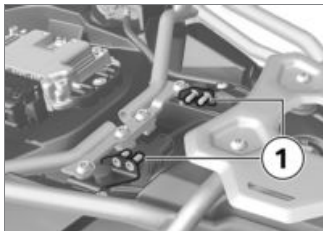


- Engage the seat in holders **1**.
- Firmly press down on the seat at the front.
- » The seat engages with an audible click.

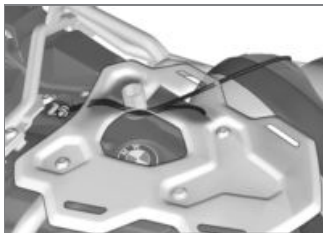
### Helmet holder

### Securing the helmet to motorcycle

- Remove seat (➡ 50).



- Use a plastic-sheathed steel cable to secure the helmet to helmet holder **1** on left or right.



- ⚠ If it is attached on the left side of the motorcycle, there is a possibility of the hel-

met being damaged by the hot end silencer.

If possible, attach the helmet on the right-hand side of the motorcycle.◀



The helmet catch can scratch the panelling.

Make sure the lock is out of the way when you hook the helmet into position.◀

- Pass the steel cable through the helmet and the holder and position cable and helmet as shown here.
- Install the seat (📖 50).

## 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.

### Correct loading



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

- Set spring preload, damping characteristic and tyre pressures to suit total weight.
- with aluminium case<sup>OA</sup>
- Make sure that the weight is uniformly distributed between right and left.
- Pack heavy items at the bottom of the cases and toward the inboard side.
- Note the maximum permissible payload and the speed limit for riding with cases fitted, as stated on the label inside the case. ◀
- with aluminium topcase<sup>OA</sup>
- Note the maximum permissible payload and the speed limit for riding with topcase fitted, as stated on the label inside the topcase. ◀
- with tank rucksack<sup>OA</sup>
- Note the maximum permissible payload of the tank rucksack.



Payload of tank bag

– max 5 kg◀

- with rear softbag<sup>OA</sup>
- Note the maximum payload of the rear softbag.



Payload of rear softbag

– max 1.5 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.:

- Flase settings of the spring-strut and shock-absorber system
- Imbalanced load
- Loose clothing
- Insufficient tyre pressure

- Poor tyre tread
- Added luggage systems such as bags, topcases and tank bags. 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 motorcycle in any way that could result in tuned performance.◀

## Checklist

Use the following checklist to check important functions, settings and wear limits:

### Before each journey:

- Brakes
- Brake-fluid levels, front and rear
- Clutch function
- 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)
- Tension and lubrication of the drive chain

## Starting

### Starting 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 ignition (▮▮▮ 30).
- » Pre-ride check is performed. (▮▮▮ 55)
- » ABS self-diagnosis is in progress. (▮▮▮ 55)
- with Automatic Stability Control (ASC)<sup>OE</sup>
- » ASC self-diagnosis is performed. (▮▮▮ 56) ◀
- 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. ◀

- » The engine starts.
- » If the engine refuses to start, consult the troubleshooting chart in the section entitled "Technical data". (►► 111)

## 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 warn-

ing 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)<sup>OE</sup>

BMW Motorrad ASC performs self-diagnosis to ensure its operability. Self-diagnosis is per-

formed 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 diagnosable system components while the motorcycle is on the move (speed at least 3.1 mph (5 km/h)).



ASC warning light slow-flashes.

## ASC self-diagnosis completed

- » The ASC warning light goes out.
- Make sure that all the warning and telltale lights come on in the pre-ride check.

After completion of ASC self-diagnosis an indicator showing an ASC fault is displayed:

- 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<sup>-1</sup>

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



Mileage until the 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.◀

## Speed

– with on-board computer<sup>OE</sup>

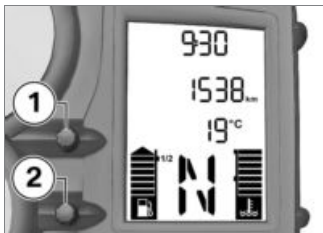
## Redline warning



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



- Switch on ignition (III 30).
- 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.

## Off-roading

### After off-roading

BMW Motorrad recommends checking the following after riding the motorcycle off-road:

### Tyre pressure



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

Always check that the tyre pressures are correct. ◀

### Brakes



When riding on loose surfaces or muddy roads, the brakes may fail to take effect immediately because of dirt or

moisture on the discs or brake pads.

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



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

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

### Spring preload and shock-absorber settings



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

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

characteristics before you return to surfaced roads.◀

## Rims

BMW Motorrad recommends checking the rims for damage after off-roading.

## Air filter element



Engine damage due to clogged air filter element.

If you ride in dusty terrain check the air filter element for clogging at shorter intervals; clean or replace as necessary.◀

Operation in very dusty conditions (desert, steppes, or the like) necessitates the use of air filter elements specially designed for conditions of this nature.

## 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 motorcycle.

Do not lean or sit on the motorcycle 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<sup>OE</sup>

- 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 motorcycle would topple in consequence.

Do not lean or sit on the motorcycle 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 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.◀

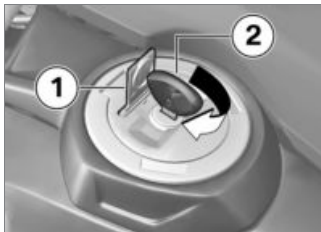
**⚠** Fuel expands when hot. Fuel escaping from an overfilled tank could make its way onto the road surface. This could cause a fall.

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 lower edge of the fuel 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 filling amount” specified in the technical data is the amount that can be refilled if the tank has been fully depleted beforehand

and the engine has subsequently cut out due to insufficient fuel.◀



Usable fuel capacity

– approx. 24 l



Reserve fuel

– min 2.7 l

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

## 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 fuel 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

– with regular unleaded (RON 91)<sup>OE</sup>

- Regular unleaded (slight power- and consumption-related restrictions) (max. 10 % ethanol, E10)
- 91 ROZ/RON
- 87 AKI◀

## Securing motorcycle for transportation

- Make sure that all components that might come into contact with straps used to secure the

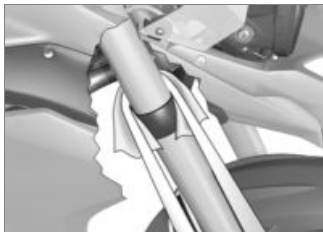
vehicle are adequately protected against scratching. Use adhesive tape or soft cloths, for example, for this purpose.



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 frame on both sides and tighten the straps.
- Tighten all the straps uniformly; the vehicle's suspension should be compressed as tightly as possible front and rear.

## Riding mode

- with off-road mode ABS and ASC<sup>OE</sup>

## Selection

In order to adjust the motorcycle to the road condition, two riding modes can be selected:

- ROAD: On-road riding
- ENDURO: Off-road riding

For each of the two riding modes aligned settings for the ABS and ASC systems are available.

ABS and/or ASC can be switched off in each mode: the explanations below invariably apply to the behaviour of the motorcycle with these systems active.

## ABS

- The rear wheel lift assistant is active in both modes.
- In the ROAD mode ABS has been adjusted to on-road riding.

- In ENDURO mode ABS has been adjusted to off-road riding using massive-bar tyres.

## ASC

- The front wheel lift assistant is active in both modes.
- In the ROAD mode ASC has been adjusted to on-road riding.
- In ENDURO mode ASC has been adjusted to off-road riding.

## Mode changes

A changeover of the ABS and ASC functions while riding is possible only in certain operating states:

- No drive torque at the rear wheel
- No brake pressure in the brake system.

In order to achieve this state:

- The throttle twistgrip must be in the fully closed position,
- The brake levers must be in the released positions,
- The clutch lever must be pulled and the clutch disengaged

or

- The motorcycle must be at a standstill with the ignition switched on.

The desired riding mode is initially preselected. The mode change does not take place until the systems in question are all in the appropriate state.

## 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 and 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 occurs the ABS will be activated and the brake pressure adapted to the maximally transferable braking force. The wheels con-

tinue to turn and the driving stability is retained irrespective of the road condition.

### 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 race course.

### 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 (burn-out).
- 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 inspection intervals. ◀

### 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 BMW Motorrad 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)<sup>OE</sup>

### **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 in-

tervenes, 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.

For offroad driving the riding mode ENDURO should be activated:. This mode delays ASC intervention slightly in order to permit controlled drifting.

The system is not optimised for special requirements that apply under extreme competitive situations off-road or on the race

course. 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 (burn-out).
- 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 un-

able to control a situation of this nature.

## General instructions

The "Maintenance" chapter describes straightforward procedures for checking and replacing certain wear parts.

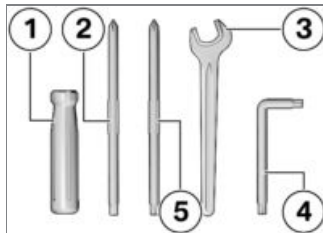
Special tightening torques are listed as applicable. The tightening torques for the threaded fasteners on your vehicle are listed in the section entitled "Technical data".

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 toolkit

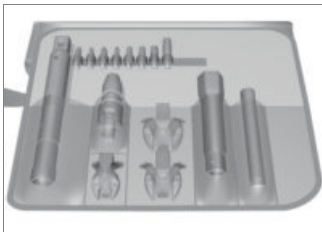


- 1 Screwdriver handle
- 2 Reversible screwdriver blade  
With star-head and plain-tip ends
  - Remove turn indicator bulbs, front and rear (➡ 92).
  - Replacing number-plate light bulbs (➡ 93).
  - Remove battery (➡ 100).

- 3 Open-ended spanner  
Width across flats 17  
– Adjust mirror arm (➡ 44).
- 4 Torx wrench, T40  
– Adjust headlight beam throw (➡ 49).
- 5 Reversible screwdriver blade  
With cross recess and Torx T25  
– Remove centre trim panel (➡ 95).

### Tools service set

- with service toolkit<sup>OA</sup>



BMW Motorrad has assembled a tools service set that is ideal for carrying out extended service 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.◀

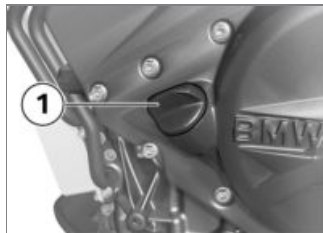
- Wipe the area around the oil filler neck clean.
- Allow the engine to idle until the fan starts up, then allow it to idle one minute longer.



To reduce the environmental impact BMW Motorrad recommends to check the engine oil after every journey of at least 50 km.◀

- Switch off the engine.
- Make sure the engine is at operating temperature and hold the motorcycle upright.
  - with centre stand<sup>OE</sup>
- Check that the engine is at operating temperature, make sure the ground is level and firm

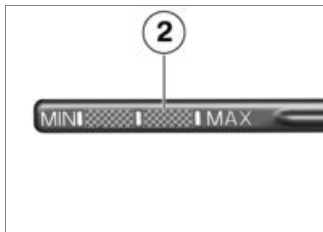
and place the motorcycle on its centre stand.◀



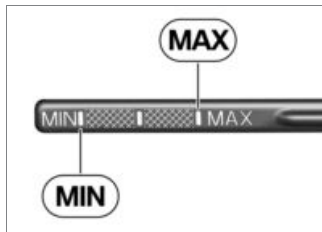
The motorcycle can topple and fall on its side.

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.
- Place 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

- products recommended by BMW Motorrad
- max 0.4 l (Difference between MIN and MAX )

If the oil level is below the MIN mark:

- Top up the engine oil (➡ 71).

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.

## Topping up the engine oil



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

Always make sure that the oil level is correct. ◀

- 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.
- Top up the engine oil to the specified level.
- Check engine oil level (→ 70).
- Install the oil dipstick.

## Brake system

### Checking operation of brakes

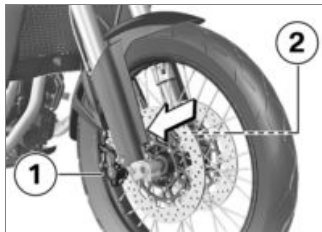
- Pull the front brake lever.
- » The pressure point must be clearly perceptible.
- Press the footbrake lever.

» 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.

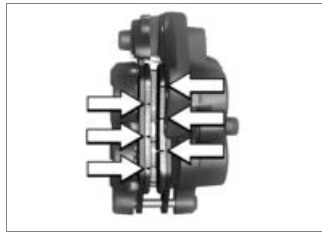
### Checking front brake pad thickness

- 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 ascer-

tain their thickness. Viewing direction: Between wheel and front suspension toward brake callipers 1 and 2.



 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 brake caliper 1.



Brake-pad wear limit,  
rear

– min 1.0 mm (Friction pad only, without backing plate.)

If the brake pads are worn:

 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<sup>OE</sup>
- Make sure the ground is level and firm and place the motor-cycle 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 (visual inspection)

– 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:

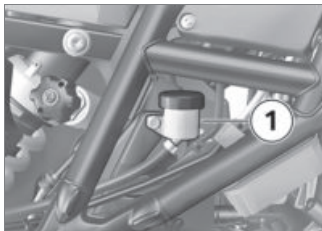
- Have the defect rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad dealer.

## Checking 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 motor-cycle upright.
- with centre stand<sup>OE</sup>
- Make sure the ground is level and firm and place the motor-cycle 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 (visual inspection)

– Brake fluid, DOT4

– It is impermissible for the brake fluid level to drop below the MIN mark.

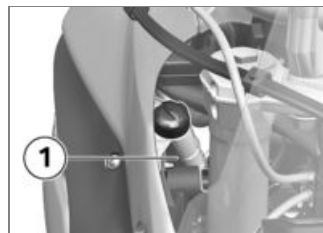
If the brake fluid level drops below the permitted level:

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



- Check the coolant level in expansion tank **1**. Viewing direction: From in front, between windscreen and right side panel.



Coolant, specified level

- Antifreeze and corrosion inhibitor
- between MIN and MAX marks on the expansion tank

If the coolant drops below the permitted level:

- Top up coolant (➡ 76).

## Topping up coolant



- Open cap **1** of the expansion tank.
- Using a suitable funnel, top up with coolant until the level is correct.
- Close the cap of the expansion tank.

## 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.

### Checking 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.



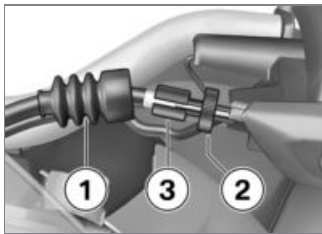
Clutch cable play

– 5 mm (Handlebars in straight-ahead position)

Clutch play is out of tolerance:

- Adjust clutch play (➡ 77).

## 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 (➡ 76).
- 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.

## Checking spokes

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

If the notes vary:

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

## Checking tyre tread depth



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

Have the tyres changed in good time before they wear to the minimum permissible tread depth. ◀

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

 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.

## Chain

### Lubricating chain



Dirt, dust and inadequate lubrication will result in accelerated wear and significantly shorten the drive chain's useful life.

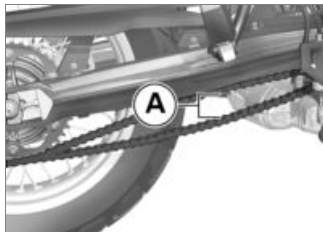
Clean and lubricate the drive chain at regular intervals.◀

- Lubricate the drive chain every 1000 km at the latest. Lubricate the chain more frequently if the motorcycle is ridden in wet, dusty or dirty conditions.
- Switch the ignition off and select neutral.
- Clean the drive chain with a suitable cleaning product, dry it and apply chain lubricant.
- Wipe off excess lubricant.

### Checking chain sag

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

- Turn the rear wheel until it reaches the position with the lowest amount of chain sag.



- Use a screwdriver to push the chain up and down and measure difference **A**.



Chain deflection

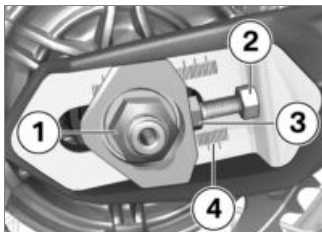
– 35...45 mm (Motorcycle with no weight applied, supported on its side stand)

If measured value is outside permitted tolerance:

- Adjust chain sag (➡ 79).

## Adjusting chain sag

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



- Slacken quick-release axle nut **1**.
- Slacken locknuts **2** on left and right.
- Use adjusting screws **3** on left and right to adjust chain sag.
- Check chain sag (➡ 78).

- Make sure that scale readings **4** are the same on left and right.
- Tighten locknuts **2** on left and right to the specified tightening torque.

 Locknut of the final-drive chain tensioning screw

– 19 Nm

- Tighten quick-release axle nut **1** to the specified tightening torque.

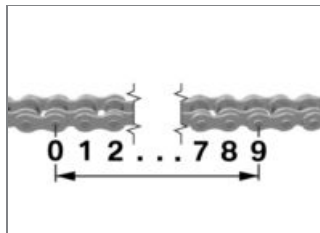
 Rear quick-release axle in swinging arm

– 100 Nm

## Checking the chain wear

- Make sure the ground is level and firm and place the motorcycle on its stand.
- Engage 1st gear.

- Turn the rear wheel in the normal direction of travel until the chain is tensioned.
- Measure the length of the chain over 9 rivets below the rear wheel swinging arm.



 permissible chain length

– max 144.30 mm (measured over 9 pins, chain pulled taut)

If the chain has stretched to the maximum permissible length:

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

## 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](http://www.bmw-motorrad.com).

## Effect of wheel size on chassis and suspension control systems

Wheel size is very important as a parameter for the Chassis and suspension control systems ABS and ASC. 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 im-

portant 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.

## Removing front wheel

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



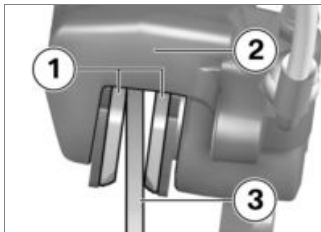
- Remove screw **1** and remove the wheel-speed sensor from its bore.



**!** 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 callipers have been removed.◀

- Remove screws **1** of the brake callipers on left and right.

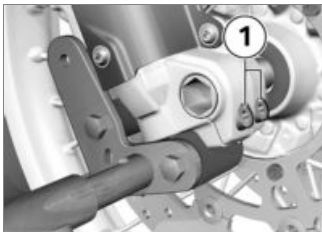


- Force the brake pads **1** slightly apart by rotational movement of the brake calliper **2** against brake disc **3**.
- Mask off the parts of the wheel rim that could be scratched in the process of removing the brake callipers.
- Carefully pull the brake callipers back and out until clear of the brake discs.
- Place the motorcycle on an auxiliary stand; BMW Motorrad recommends the BMW Motorrad rear-wheel stand. The rear-wheel stand and its accessory

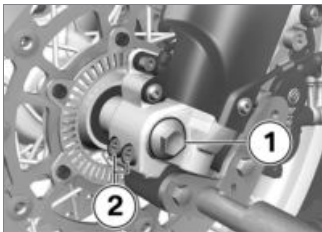
components are available from your authorised BMW motorcycle dealer.

– with centre stand<sup>OE</sup>

- 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 (► 87).

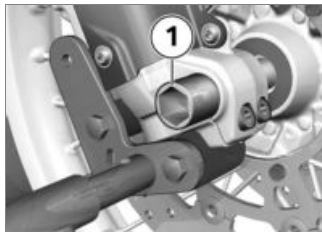


- Slacken right axle clamping screws **1**.

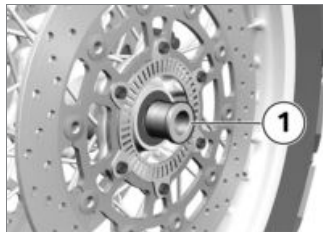


- Remove axle screw **1**.
- Slacken left axle clamping screws **2**.

- Push the axle in as far as it will go.



- Remove axle **1**, while supporting the wheel.
- Do not remove the grease from the axle.
- Roll the front wheel forward to remove.



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

## Installing front wheel

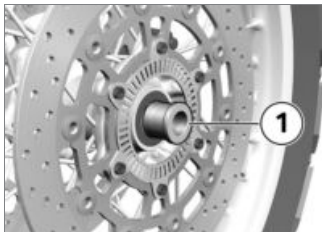


Possible malfunctions when ABS and ASC intervene, if any other wheel but the series standard wheel is installed. See the information on the effect of wheel size on chassis and suspension control units ABS and ASC at the start of this chapter.◀



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.◀

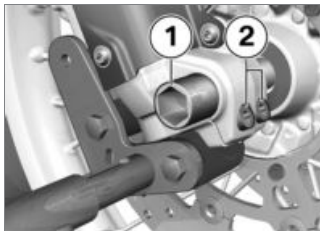


- Slip spacing bushing **1** onto the left-hand side of the wheel hub.



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 into position between the front forks.



- Raise the front wheel and insert axle **1** until seated.
- Tighten right axle clamping screws **2** to the specified tightening torque or install a suitable tool to counter-hold for the next operation in the assembly procedure.



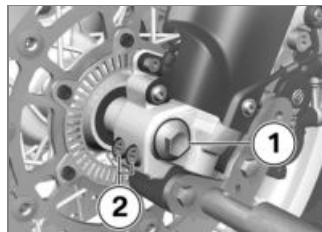
Clamp of quick-release axle

– Tightening sequence: 2x each side, alternately



Clamp of quick-release axle

– 19 Nm



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



Axle screw in quick-release axle, front

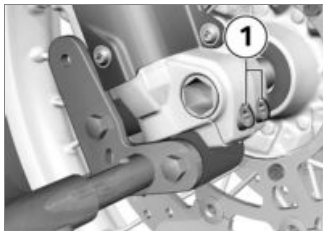
– 30 Nm

- Tighten left axle clamping screws **2** to the specified tightening torque.



Clamp of quick-release axle

- Tightening sequence: 2x each side, alternately
- 19 Nm



- If fully tightened beforehand, slacken right axle clamping screws **1** again.
  - Removing the front-wheel stand.
- without centre stand<sup>OE</sup>
- Remove the auxiliary stand.<

- Place the right brake calliper and the left brake calliper onto the brake disc.



- Tighten screws **1** on left and right to the specified tightening torque.

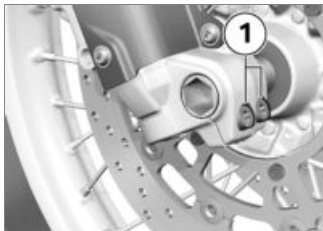


Brake caliper on telescopic fork

- 38 Nm



- Insert the ABS sensor into its bore and install screw **1**.
- Remove the adhesive tape from the wheel rim.
- Operate the brake several times until the brake pads are bedded.
- Firmly compress the front forks several times.



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



Clamp of quick-release axle

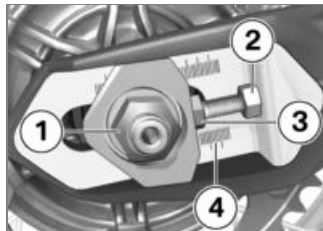
– Tightening sequence: 2x each side, alternately

– 19 Nm

- with centre stand<sup>OE</sup>
- Make sure the ground is level and firm and place the motorcycle on its centre stand.<



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



- Remove axle nut **1**.
- Slacken locknuts **2** on left and right by turning them counter-clockwise.
- Back off adjusting screws **3** on left and right by turning them counter-clockwise.
- Remove adjusting plate **4** and push the axle in as far as it will go.

## Removing rear wheel

- Make sure the ground is level and firm and place the motorcycle on a suitable auxiliary stand.



- Remove quick-release axle **1** and remove adjusting plate **2**. Support the wheel.



- Roll the rear wheel as far forward as possible and

disengage chain **1** from the sprocket.

- Roll the rear wheel back until it is clear of the swinging arm.



The sprocket and the spacer sleeves on left and right are loose fits in the wheel. Make sure that these parts are not damaged or lost on removal.◀

### Install the rear wheel



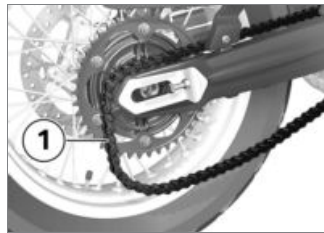
Possible malfunctions when ABS and ASC intervene, if any other wheel but the series standard wheel is installed. See the information on the effect of wheel size on chassis and suspension control units ABS and ASC at the start of this chapter.◀



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.◀

- Roll the rear wheel into the swinging arm, making sure that the brake disc passes between the brake pads.



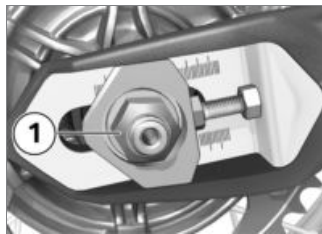
- Roll the rear wheel as far forward as possible and loop chain **1** over the sprocket.



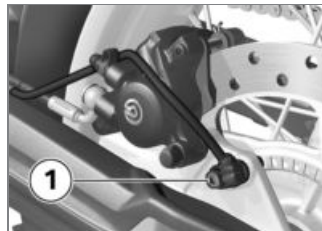
- Place left adjusting plate **2** in the swinging arm and install quick-release axle **1** in the brake calliper and the rear wheel. Support the wheel.
- Make sure that the quick-release axle fits into the recess of the adjusting plate.



- Install right adjusting plate **1**.



- Install nut **1**, but do not tighten it at this point.



- Insert the speed sensor into the bore and install screw **1**.
  - without centre stand<sup>OE</sup>
- Remove the auxiliary stand.<
- Adjust chain sag (→ 79).

## Front-wheel stand

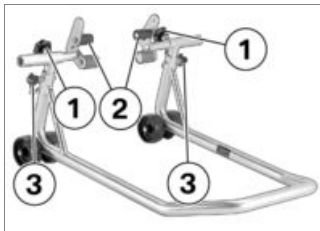
### Installing the front-wheel stand

 The BMW Motorrad front wheel stand is not designed to support the motorcycle without the assistance of an auxiliary stand. A motorcycle

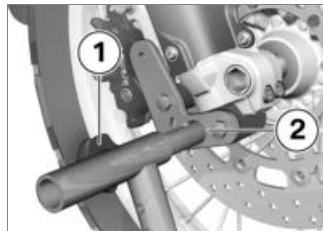
resting only on the front wheel stand and the rear wheel can topple.

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 MotorradBMW Motorrad rear-wheel stand.
- with centre stand<sup>OE</sup>
- Make sure the ground is level and firm and place the motorcycle on its centre stand.◀
- Use basic stand with front wheel holder. The basic stand and its accessory parts are available from your BMW Motorrad dealer.



- Loosen the fastening screws **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<sup>OE</sup>

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

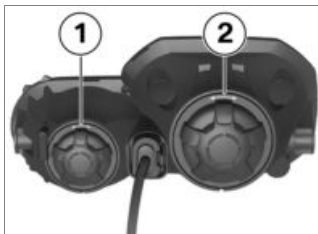
When raising the motorcycle, make sure that the centre stand remains on the ground. If necessary, adjust the height of the front-wheel stand.◀

- Make sure the motorcycle is standing firmly.◀

## Bulbs

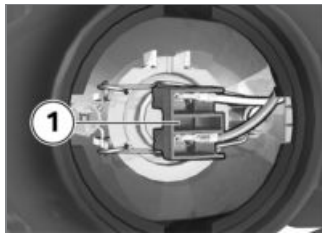
### Replacing low-beam and/or high-beam headlight bulb

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

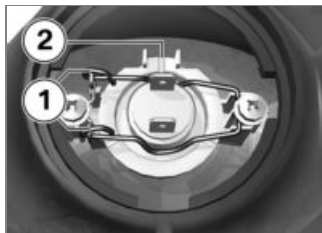


- Turn cover **1** for the high-beam headlight or cover **2** for the low-beam headlight counter-clockwise.

- Remove covers **1** and **2**.



- 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

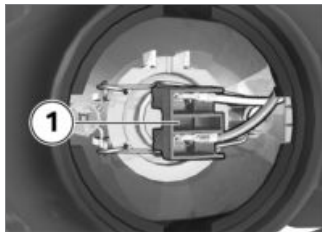
– H7 / 12 V / 55 W

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

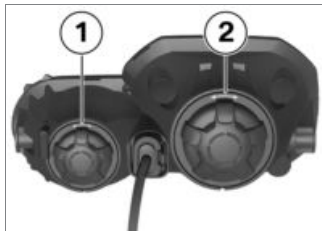


- Install the bulb **1** making sure that the tab is correctly positioned.

- Close and lock spring wire clips **2**.



- Connect plug **1**.



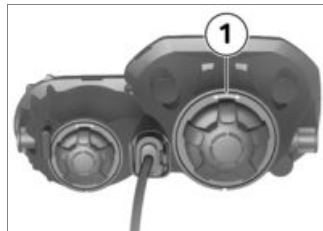
- Install covers **1** and **2**.

## Replacing parking-light bulb

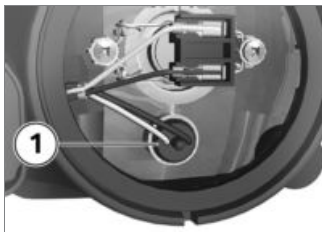
- Make sure the ground is level and firm and place the motorcycle on its stand.
- Switch off the ignition.



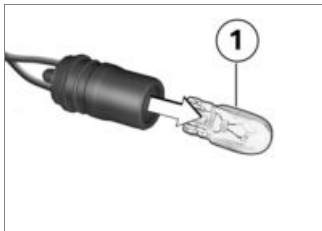
Turn the handlebars to the left to facilitate access.◀



- Turn cover **1** counter-clockwise.
- Remove cover **1**.



- Pull parking-light bulb **1** out of the headlight housing.



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

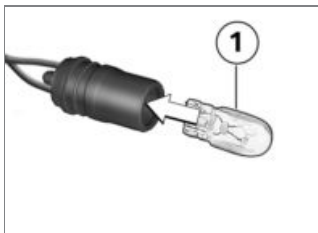
- Replace the defective bulb.



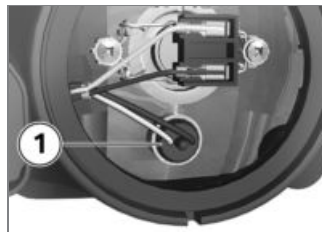
Bulb for parking light

– W5W / 12 V / 5 W

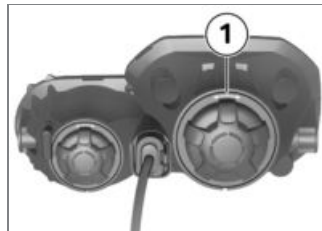
- Use a clean, dry cloth to hold the new bulb in order to keep the glass free of foreign matter.



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



- Insert parking-light bulb **1** into the headlight housing.



- Install cover **1**.

## Replacing LED for brake light and tail light

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

## Replacing LED flashing turn indicators

- with LED turn indicators<sup>OE</sup>
- 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

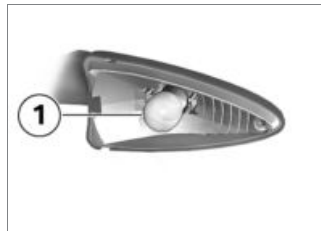
- Make sure the ground is level and firm and place the motorcycle on its stand.
- Switch off the ignition.



- Remove screw **1**.



- Pull the turn indicator glass out of the mirror 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 faulty bulb.



Bulbs for flashing turn indicators, front

– R10W / 12 V / 10 W

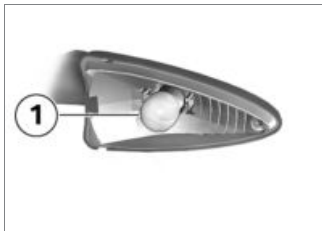
– with LED turn indicators<sup>OE</sup>

– LED / 12 V◀

- Use a clean, dry cloth to hold the new bulb in order to keep

the glass free from dirt contamination.

into the bulb housing and close the housing.



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



- Install screw **1**.

### Replacing number-plate light bulbs

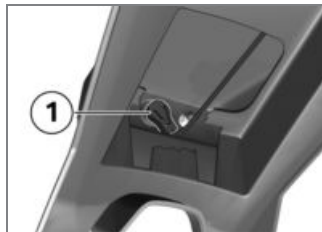
- Make sure the ground is level and firm and place the motor-cycle on its stand.
- Switch off the ignition.



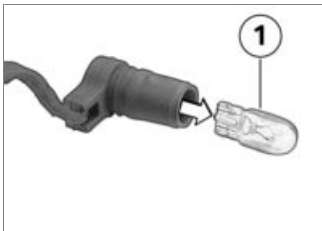
- Working from the inboard side, insert the turn indicator glass



- Remove screw **1** from the mudguard cover and remove the cover.



- Pull bulb holder **1** out of the light carrier.



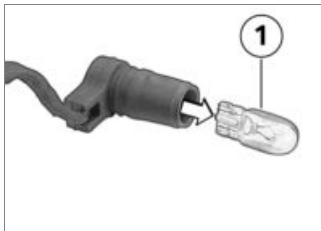
- Remove bulb **1** from the socket.
- Replace the defective bulb.



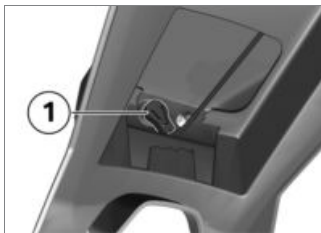
Bulb for number-plate light

– W5W / 12 V / 5 W

- Use a clean, dry cloth to hold the new bulb in order to keep the glass free from dirt contamination.



- Insert bulb **1** into the socket.



- Seat bulb holder **1** in the light carrier.



- Hold the mudguard cover in position and install screw **1**.

## Replacing auxiliary headlights

– with LED auxiliary headlights<sup>OE</sup>

- An auxiliary headlight can only be replaced in its entirety. Consult a specialist workshop, preferably an authorised BMW Motorrad dealer.

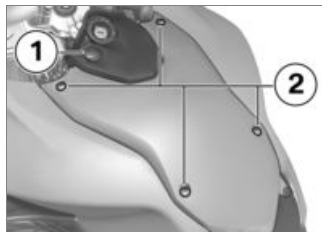
## Body panels

### Removing centre trim panel

- Remove seat (→ 50).



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



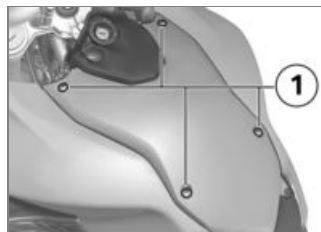
- Remove four screws **2**.
- Disconnect the plug from socket **1**.
- Remove the centre trim panel.

### Installing centre trim panel

- Connect the plug to the socket.



- Manoeuvre the centre trim panel into position. Make sure that the guides **1** on left and right engage the side panels.



- Install four screws **1**.

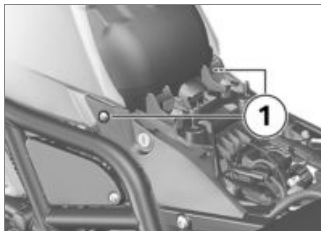


- Install screws **1** on left and right.
- Install the seat (➡ 50).

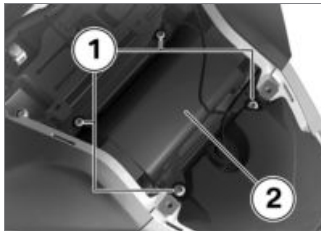
## Air filter

### Removing air filter

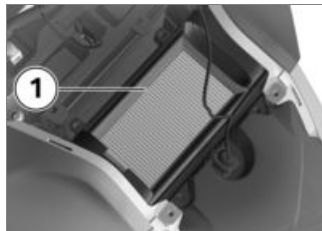
- Remove centre trim panel (➡ 95).



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

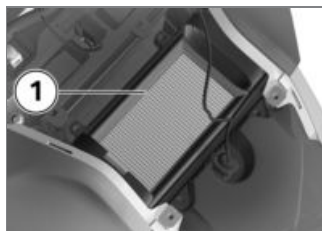


- Remove four screws **1**.
- Remove the air filter cover **2**, slightly pushing the fairing side panels outwards to do so.

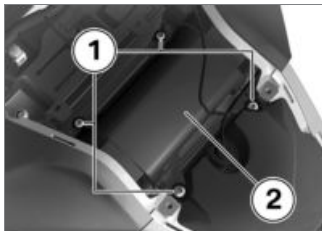


- Remove air filter **1**.

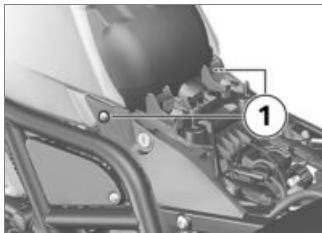
### Installing air filter



- Install air filter **1**.



- Put on the air filter cover **2**, slightly pushing the fairing side panels outwards to do so.
- Install screws **1**.



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

- Install centre trim panel (➡ 95).

## 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. ◀

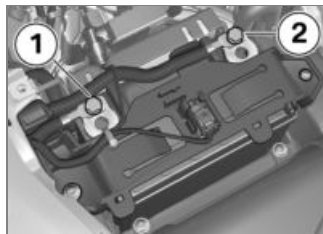
**⚠** A short-circuit can result if the crocodile clips of the jump leads are accidentally brought into contact with the motorcycle.

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. ◀

- Remove centre trim panel (➡ 95).
- 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.◀

- Install centre trim panel (► 95).

## 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 ob-

tain 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.◀



If you switch on the ignition and the multifunction display and indicator light 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.◀



Only chargers suitable for this mode of charging can be used to recharge the battery via the on-board socket. Unsuitable chargers could cause damage to the motorcycle's on-board electrics.

Use BMW suitable chargers. A suitable charger is available from BMW Motorrad your authorised dealer.◀

- 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

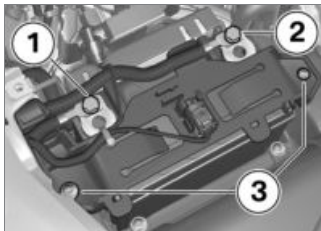
- Charge the battery using a suitable charger.
- Comply with the operating instructions of the charger.

- After charging, remove the pole terminal of the charger from the battery posts.

▶ The battery has to be re-charged 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 (DWA) OE
  - If applicable, switch off the anti-theft alarm.◀
  - Switch off the ignition.
  - Remove centre trim panel (► 95).
- Disconnect negative lead **1** first.
  - Then disconnect positive lead **2**.
  - Remove the screws **3** on left and right and pull the battery holder forward, away from the battery.
  - Lift the battery up and out; work it slightly back and forth if it is difficult to remove.



Disconnection in the wrong sequence increases the risk of short-circuits.

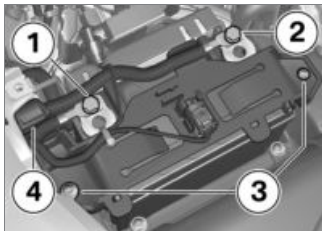
Always proceed in the correct sequence.◀

## 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.



- Install centre trim panel (▮▮▮▮ 95).
- Set clock (▮▮▮▮ 31).

- Place the battery holder in position, making sure that the leads are correctly routed at position **4**.
- Install screws **3** on left and right.



Connection 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.

## General instructions

BMW Motorrad recommends the use of parts and accessories for your motorcycle that are approved by BMW for this purpose. Your BMW Motorrad authorised dealer will offer you professional advice in your selection of original BMW parts and accessories and other products approved by BMW.

These parts and products have been tested by BMW for safety, function and suitability. BMW accepts product liability for them. BMW is unable to accept any liability whatsoever for parts and accessories which it has not approved.

Also bear in mind the information on the effect of wheel size on chassis and suspension control systems (► 80).



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.◀

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.

## 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.

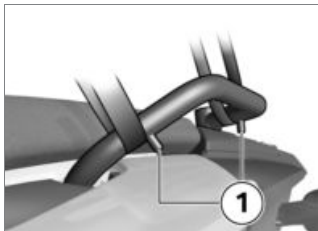
### Automatic shutdown

- The sockets will be automatically switched off during the start procedure.

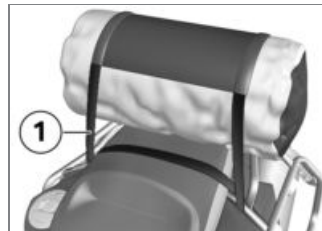
- The power supply to the sockets is switched off no more than 15 minutes after the ignition is switched off, in order to prevent overloading of the on-board electrics. Low-wattage electrical accessories might not be recognised by the vehicle's electronics. In such cases, power sockets are switched off 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.

## Luggage

### Lashing luggage



- Loop the luggage straps over the bar between the motorcycle and stops **1**.

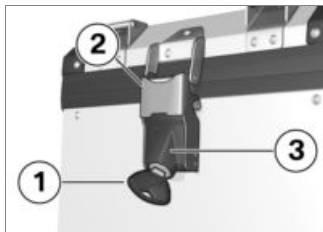


- Position luggage strap **1** as shown here with a stuffbag as example.
- Check that the luggage is secure.

### Aluminium case

- with aluminium case<sup>OA</sup>

## Opening the aluminium case

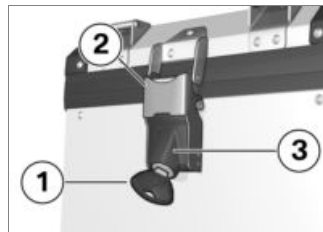


- Turn key **1** counter-clockwise.

 The case lid can be opened at either the left or the right latch. ◀

- Push lock housing **3** upwards in order to release the latch **2**.
- Pull the latch **2** to one side and open the lid.

## Closing the aluminium case



- Close the case lid.
- Set the latch **2** on the lid.
- Push lock housing **3** down, making sure that the latch toggle grips firmly in the lid.
- To lock the lock, turn the key **1** clockwise and remove it.

## Removing case lid

- Open one latch of the case lid.



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

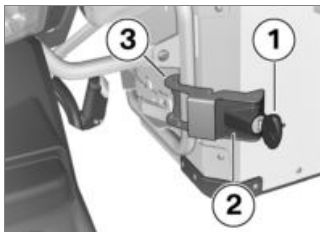
## Installing case lid

- Place the case lid on the case.
- Close one latch of the case lid.
- Open the case lid at the fastened side.



- Engage retainer **1**.
- Close the case lid.
- Close the second latch of the case lid.

## Removing the aluminium case



- Turn key **1** counter-clockwise.
- Push lock housing **2** to one side in order to release the catch **3**.
- Push the latch **3** to one side while holding the case.

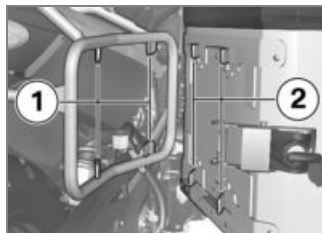


The left case and the case carrier can become hot on long rides.

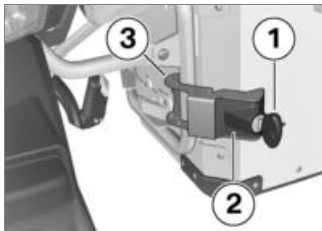
Allow the case and the case carrier to cool down before removing the case.◀

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

## Installing the aluminium case



- Set the aluminium case on the case holder and push it forward in such a way that the mounts on case holder **1** and on aluminium case **2** engage each other.



- Place the latch **3** on the case holder while holding the case.
- Push lock housing **2** to the side, making sure that the latch toggle grips firmly on the carrier.
- Turn key **1** clockwise and remove.

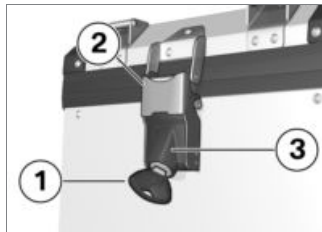
## Aluminium topcase

– with aluminium topcase<sup>OA</sup>

## Aluminium topcase and off-roading

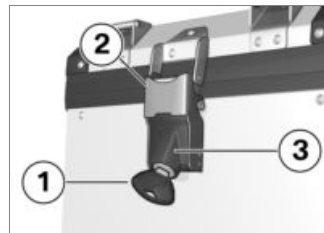
It is advisable to either remove the aluminium topcase or fit the backrest pad available as optional accessories if you intend off-roading.

## Opening the aluminium topcase



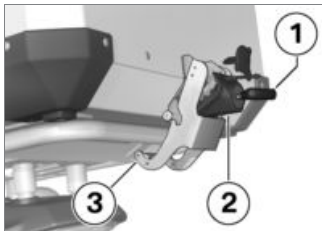
- Turn key **1** counter-clockwise.
- Push lock housing **3** upwards in order to release the latch **2**.
- Pull the latch **2** backwards and open the lid.

## Closing the aluminium topcase



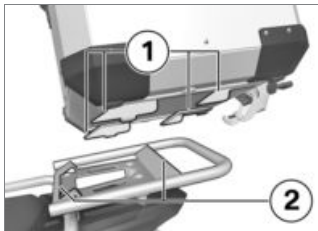
- Close the topcase lid.
- Set the latch **2** on the lid.
- Push lock housing **3** down, making sure that the latch toggle grips firmly in the lid.
- To lock the lock, turn the key **1** clockwise and remove it.

## Removing the aluminium topcase

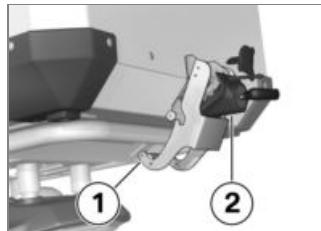


- Turn key **1** counter-clockwise.
- Push lock housing **2** downwards in order to release the catch **3**.
- Pull the latch **3** backwards.
- Pull the aluminium topcase to the rear and then lift it up to remove.

## Installing the aluminium topcase



- Set the aluminium topcase on the topcase carrier and push it forward in such a way that the mounts on topcase carrier **2** and on aluminium topcase **1** engage each other.



- Set the latch **1** on the topcase carrier.
- Push lock housing **2** up, making sure that the latch toggle grips firmly on the carrier.
- To secure the lock, turn the key clockwise and remove.

## Care products

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



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

## Washing motorcycle

BMW Motorrad recommends that you use BMW insect remover to soften and wash off insects and stubborn dirt on

painted parts prior to washing the vehicle.

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

Make sure that the vehicle is washed frequently, especially during the winter months.

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



After the motorcycle has been washed, ridden through water or ridden in the rain, the brake discs and pads might be wet and the brakes might not take effect immediately.

Apply the brakes in good time until the brake discs and brake pads have dried out.◀



Warm water intensifies the effect of salt.

Use only cold water to wash off road salt.◀



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.◀

## Cleaning easily damaged components

### Plastics



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

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

## Windscreens and headlight lenses made of 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

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

## Radiator

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



Cooling fins can be bent easily.

Take care not to bend the fins when cleaning the radiator.◀

## Rubber

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



Using silicone sprays for the care of rubber seals can cause damage.

Do not use silicone sprays or care products that contain silicon.◀

## Paint care

Washing the vehicle regularly will help counteract the long-term effects of substances that damage the paint, especially if your vehicle is ridden in areas with high air pollution or natural sources of dirt, for example tree resin or pollen.

Remove particularly aggressive substances immediately, however, as otherwise the paint can be affected or become discoloured. Substances of this nature include spilt fuel, oil, grease, brake fluid and bird droppings. We recommend BMW vehicle polish or BMW paint cleaner for this purpose.

Marks on the paintwork are particularly easy to see after the motorcycle has been washed. Remove stains of this kind immediately, using cleaning-grade benzene or petroleum spirit on a clean cloth or ball of cotton wool. BMW Motorrad recommends BMW tar remover for removing specks of tar. Remember to wax the parts treated in this way.

## Protective wax coating

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

It is time to re wax the paint-work when water "puddles" on the surface, instead of forming beads.

## Laying up motorcycle

- Clean the motorcycle.
- Remove battery (➡ 100).
- 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.

## 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 at all or is difficult to start.

| Possible cause                         | Rectification                                                 |
|----------------------------------------|---------------------------------------------------------------|
| Kill switch activated                  | Set emergency-off switch (kill switch) to operating position. |
| 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                        | Refuel (▮▮▮▶ 61).                                             |
| Battery flat                           | Charge battery when connected (▮▮▮▶ 99).                      |

## Threaded fasteners

| Front wheel                                              | Value                            | Valid |
|----------------------------------------------------------|----------------------------------|-------|
| <b>Brake caliper on telescopic fork</b>                  |                                  |       |
| M10 x 40                                                 | 38 Nm                            |       |
| <b>Clamp of quick-release axle</b>                       |                                  |       |
| M8 x 25                                                  | <b>2x each side, alternately</b> |       |
|                                                          | 19 Nm                            |       |
| <b>Axle screw in quick-release axle, front</b>           |                                  |       |
| M14 x 1.5                                                | 30 Nm                            |       |
| Rear wheel                                               | Value                            | Valid |
| <b>Locknut of the final-drive chain tensioning screw</b> |                                  |       |
| M8                                                       | 19 Nm                            |       |
| <b>Rear quick-release axle in swinging arm</b>           |                                  |       |
| M16 x 1.5                                                | 100 Nm                           |       |

| Mirror arm                                       | Value | Valid |
|--------------------------------------------------|-------|-------|
| <b>Locknut (mirror) to clamping piece</b>        |       |       |
| M14 x 1                                          | 20 Nm |       |
| <b>Clamping piece (mirror) to clamping block</b> |       |       |
| M10                                              | 30 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 <sup>3</sup>                                                                                                                                                                             |
| Cylinder bore                                    | 82 mm                                                                                                                                                                                           |
| Piston stroke                                    | 75.6 mm                                                                                                                                                                                         |
| Compression ratio                                | 12 : 1                                                                                                                                                                                          |
| Nominal output                                   | 63 kW, at engine speed: 7500 min <sup>-1</sup>                                                                                                                                                  |
| – with regular unleaded (RON 91) <sup>OE</sup>   | 61 kW, at engine speed: 7500 min <sup>-1</sup>                                                                                                                                                  |
| – without reduction of power 35 kW <sup>OE</sup> |                                                                                                                                                                                                 |
| – with reduction of power 35 kW <sup>OE</sup>    | 35 kW, at engine speed: 7000 min <sup>-1</sup>                                                                                                                                                  |
| Torque                                           | 83 Nm, at engine speed: 5750 min <sup>-1</sup>                                                                                                                                                  |
| – with regular unleaded (RON 91) <sup>OE</sup>   | 81 Nm, at engine speed: 5750 min <sup>-1</sup>                                                                                                                                                  |
| – with reduction of power 35 kW <sup>OE</sup>    | 63 Nm, at engine speed: 4000 min <sup>-1</sup>                                                                                                                                                  |
| – with reduction of power 35 kW <sup>OE</sup>    | 61 Nm, at engine speed: 4000 min <sup>-1</sup>                                                                                                                                                  |
| – with regular unleaded (RON 91) <sup>OE</sup>   |                                                                                                                                                                                                 |
| Maximum engine speed                             | max 9000 min <sup>-1</sup>                                                                                                                                                                      |
| Idle speed                                       | 1250 <sup>+50</sup> min <sup>-1</sup>                                                                                                                                                           |

## Fuel

|                                                |                                                                                                                              |
|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Recommended fuel grade                         | Super unleaded (max. 10 % ethanol, E10)<br>95 ROZ/RON<br>89 AKI                                                              |
| – with regular unleaded (RON 91) <sup>OE</sup> | Regular unleaded (slight power- and<br>consumption-related restrictions) (max. 10 %<br>ethanol, E10)<br>91 ROZ/RON<br>87 AKI |
| Usable fuel capacity                           | approx. 24 l                                                                                                                 |
| Reserve fuel                                   | min 2.7 l                                                                                                                    |

**BMW recommends BP fuels**



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Technical data

## Engine oil

|                                      |                                                                                                                                                                                                                                                                                    |
|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Engine oil, capacity                 | 2.9 l, with filter change                                                                                                                                                                                                                                                          |
| products recommended by BMW Motorrad |                                                                                                                                                                                                                                                                                    |
| BMW Motorrad High Performance oil    | SAE 15W-50, API SJ / JASO MA2                                                                                                                                                                                                                                                      |
| 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 

## Clutch

|             |                                       |
|-------------|---------------------------------------|
| clutch type | Multiplate clutch running in oil bath |
|-------------|---------------------------------------|

## Transmission

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

## Rear-wheel drive

|                                                       |                                     |
|-------------------------------------------------------|-------------------------------------|
| Type of final drive                                   | chain drive                         |
| Type of rear suspension                               | Two-arm cast-aluminium swinging arm |
| Number of teeth, rear-wheel drive (Pinion / sprocket) | 16 / 42                             |

## Chassis and suspension

### Front wheel

|                          |                  |
|--------------------------|------------------|
| Type of front suspension | Upside-down fork |
| Spring travel, front     | 230 mm, At wheel |

### Rear wheel

|                                                             |                                                                                                               |
|-------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| Type of rear suspension                                     | Two-arm cast-aluminium swinging arm                                                                           |
| Type of rear suspension                                     | directly hinged central spring strut with adjustable rebound damping/spring preload                           |
| – with Electronic Suspension Adjustment (ESA) <sup>OE</sup> | directly hinged central spring strut with adjustable rebound damping/electronically adjustable spring preload |
| Spring travel at rear wheel                                 | 215 mm, At wheel                                                                                              |

## Brakes

### Front wheel

|                           |                                                                                                 |
|---------------------------|-------------------------------------------------------------------------------------------------|
| Type of front brake       | Hydraulically operated twin disc brake with 2-piston floating calipers and floating brake discs |
| Brake-pad material, front | Sintered metal                                                                                  |

### Rear wheel

|                          |                                                                                 |
|--------------------------|---------------------------------------------------------------------------------|
| Type of rear brake       | Hydraulically operated disc brake with 1-piston floating caliper and fixed disc |
| Brake-pad material, rear | Organic material                                                                |

## 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 " <a href="http://www.bmw-motorrad.com">www.bmw-motorrad.com</a> ". |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### Front wheel

|                         |                     |
|-------------------------|---------------------|
| front wheel type        | Spoked wheel, MT H2 |
| front wheel rim size    | 2.15" x 21"         |
| Tyre designation, front | 90 / 90 - 21        |

**Rear wheel**

|                        |                     |
|------------------------|---------------------|
| rear-wheel type        | Spoked wheel, MT H2 |
| rear wheel rim size    | 4.25" x 17"         |
| Tyre designation, rear | 150 / 70 - 17       |

**Tyre pressure**

|                      |                                                                              |
|----------------------|------------------------------------------------------------------------------|
| Tyre pressure, front | 2.2 bar, one-up, tyre cold<br>2.4 bar, two-up and/or with luggage, tyre cold |
| Tyre pressure, rear  | 2.4 bar, one-up, tyre cold<br>2.8 bar, two-up and/or with luggage, 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                     | LED / 12 V                |
| Maximum number of defective LEDs in rear-light unit | 6, Brake light/rear light |
| Bulb for number-plate light                         | W5W / 12 V / 5 W          |
| Bulbs for flashing turn indicators, front           | R10W / 12 V / 10 W        |
| – with LED turn indicators <sup>OE</sup>            | LED / 12 V                |
| Bulbs for flashing turn indicators, rear            | R10W / 12 V / 10 W        |
| – with LED turn indicators <sup>OE</sup>            | LED / 12 V                |

## Frame

|                                               |                          |
|-----------------------------------------------|--------------------------|
| Frame type                                    | tubular spaceframe       |
| type plate location                           | Steering head, front top |
| Location of the vehicle identification number | Steering head, right     |

## Dimensions

|                                      |                                                                                   |
|--------------------------------------|-----------------------------------------------------------------------------------|
| Length of motorcycle                 | 2300 mm, across front wheel to number-plate carrier                               |
| Height of motorcycle                 | 1450 mm, across windscreen, without rider at unladen weight (as per DIN standard) |
| Width of motorcycle                  | 925 mm, across handlebars without mirrors                                         |
| Front-seat height                    | 890 mm, Without rider at unladen weight                                           |
| – with dual seat, low <sup>OE</sup>  | 860 mm, Without rider at unladen weight                                           |
| rider's inside-leg arc, heel to heel | 1960 mm, Without rider at unladen weight                                          |
| – with dual seat, low <sup>OE</sup>  | 1920 mm, Without rider at unladen weight                                          |

## Weights

|                          |                                                                                        |
|--------------------------|----------------------------------------------------------------------------------------|
| Unladen weight           | 229 kg, DIN unladen weight, ready for road, 90 % load of fuel, without optional extras |
| Permissible gross weight | 454 kg                                                                                 |
| Maximum payload          | 225 kg                                                                                 |

## Riding specifications

|                                               |                  |
|-----------------------------------------------|------------------|
| Top speed                                     | approx. 193 km/h |
| – with reduction of power 35 kW <sup>OE</sup> | approx. 155 km/h |
| – with reduction of power 25 kW <sup>OE</sup> | approx. 136 km/h |

## BMW Motorrad Service

BMW Motorrad has an extensive after-sales service network 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 carry out reliably all maintenance and repair work on your BMW.

Visit our website [www.bmw-motorrad.com](http://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, prefer-

ably 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 odo-

meter 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 \_\_\_\_\_

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

## 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 |
|------|------------------|------|
|      |                  |      |
|      |                  |      |
|      |                  |      |
|      |                  |      |
|      |                  |      |
|      |                  |      |
|      |                  |      |
|      |                  |      |
|      |                  |      |

[illegible]

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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.

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Important data for refuelling.

|                                                |                                                                                                                        |
|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| <b>Fuel</b>                                    |                                                                                                                        |
| Recommended fuel grade                         | Super unleaded (max. 10 % ethanol, E10)<br>95 ROZ/RON<br>89 AKI                                                        |
| – with regular unleaded (RON 91) <sup>OE</sup> | Regular unleaded (slight power- and consumption-related restrictions) (max. 10 % ethanol, E10)<br>91 ROZ/RON<br>87 AKI |
| Usable fuel capacity                           | approx. 24 l                                                                                                           |
| Reserve fuel                                   | min 2.7 l                                                                                                              |
| <b>Tyre pressure</b>                           |                                                                                                                        |
| Tyre pressure, front                           | 2.2 bar, one-up, tyre cold                                                                                             |
|                                                | 2.4 bar, two-up and/or with luggage, tyre cold                                                                         |
| Tyre pressure, rear                            | 2.4 bar, one-up, tyre cold                                                                                             |
|                                                | 2.8 bar, two-up and/or with luggage, tyre cold                                                                         |

**BMW recommends** 

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