BMW Motorrad

The Ultimate Riding Machine

## Rider's Manual (US Model)

# F 700 GS

## Motorcycle/Retailer Data

### Motorcycle Data

Model

Vehicle identification number

Color number

Initial registration

License plate

### Retailer Data

Contact in Service

Ms./Mr.

Phone number

Retailer's address/phone number (company stamp)

## Welcome to BMW

Congratulations on choosing a motorcycle from BMW Motorrad and welcome to the community of BMW motorcycle owners and riders. Familiarize yourself with your new motorcycle so that you can ride it safely and confidently in all highway traffic situations.

### About this Rider's Manual

Please read this Rider's Manual carefully before starting to use your new BMW. It contains important information on how to operate the controls and how to get the most benefit from your BMW's advanced technical features.
In addition, it contains information on maintenance and care to help you maintain your vehicle's reliability and safety, as well as its value.

### Suggestions and complaints

If you have any questions concerning your motorcycle, your authorized BMW Motorrad retailer is always happy to provide advice and assistance.

We wish you many miles of safe and enjoyable riding on your BMW

BMW Motorrad.

01 41 8 559 337

# Table of Contents

## General instructions

## Overview

Chapter 2 of this Rider's Manual will provide you with an initial overview of your motorcycle. All maintenance and repair work carried out on your motorcycle will be documented in chapter 12. Documentation confirming performance of scheduled maintenance is a precondition for generous handling of out-of-warranty claims and goodwill warranty treatment.
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

**CAUTION** Hazard with low risk. Failure to avoid this hazard can result in minor or moderate injury.

**WARNING** Hazard with moderate risk. Failure to avoid this hazard can result in death or serious injury.

**DANGER** Hazard with high risk. Failure to avoid this hazard results in death or serious injury.

**ATTENTION** Special instructions and precautionary measures. Non-compliance can cause damage to the vehicle or accessories and warranty claims may be denied as a result.

**NOTICE** Special information on operating and inspecting your motorcycle as well as maintenance and adjustment procedures.

◀ 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 accessory or equipment-dependent information.

Tightening torque.

Technical data.

OE Optional extra.
BMW Motorrad optional extras are already completely installed during motorcycle production.

OA Optional accessory. BMW Motorrad optional accessories can be purchased and installed at your authorized BMW Motorrad retailer.

EWS Electronic immobilizer.

DWA Anti-theft alarm.

ABS Anti-Lock Brake System.

ASC Automatic Stability Control.

ESA Electronic Suspension Adjustment.

TPC Tire Pressure Control (TPC).

## Equipment

When you ordered your BMW motorcycle, you chose various items of custom equipment. This Rider's Manual describes optional equipment (OE) offered by BMW and selected optional accessories (OA). This explains why the manual may also contain descriptions of equipment which you have not ordered. Please note, too, that your motorcycle might not be exactly as illustrated in this manual on account of country-specific differences.
If your BMW is equipped with options or accessories not described in this Rider's Manual, then this equipment is described in a separate set of instructions.

## Technical data

All dimensions, weights and performance data contained this Rider's Manual refer to the German DIN standards and comply with their tolerance specifications. Versions for individual countries may differ.

## Notice concerning current status

The high safety and quality standards of BMW motorcycles are maintained by consistent, ongoing development efforts embracing their design, equipment and accessories. For this reason, aspects of your motorcycle may vary from the descriptions in this Operating instructions. In addition, BMW Motorrad cannot guarantee the total absence of errors. We hope you will appreciate that no claims can be recognized based on the data, il-

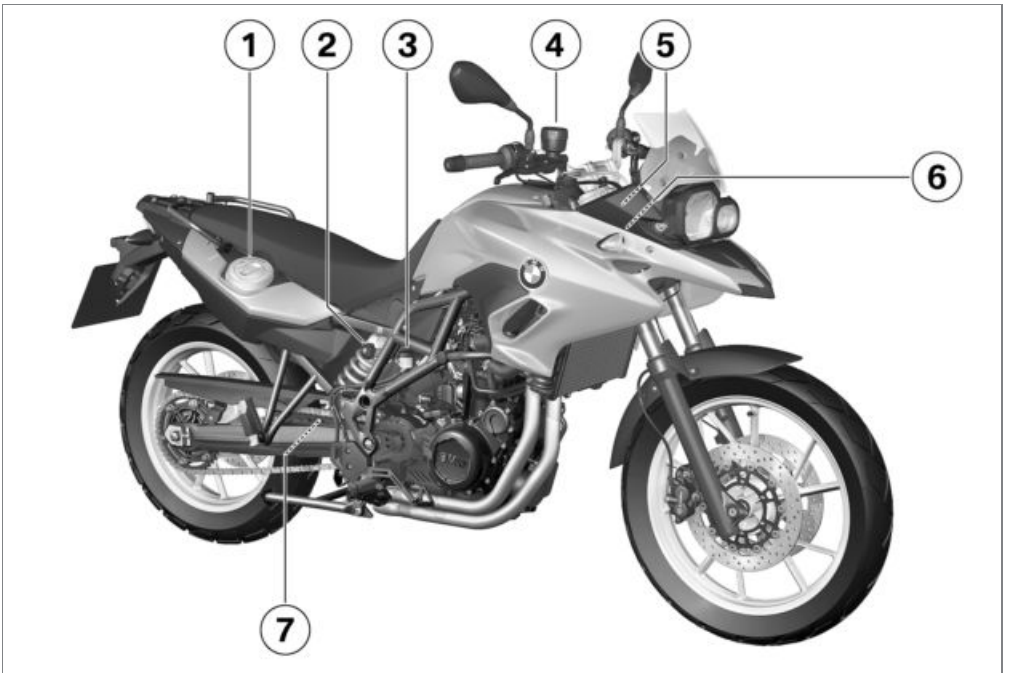
lustrations or descriptions in this manual.

**Overviews**


1
2
3
BMW
F 700 GS

## General view, left side

**1** Onboard socket (➠ 94)
**2** Seat lock (➠ 57)
**3** Engine oil fill location and oil dipstick (➠ 105)


1
2
3
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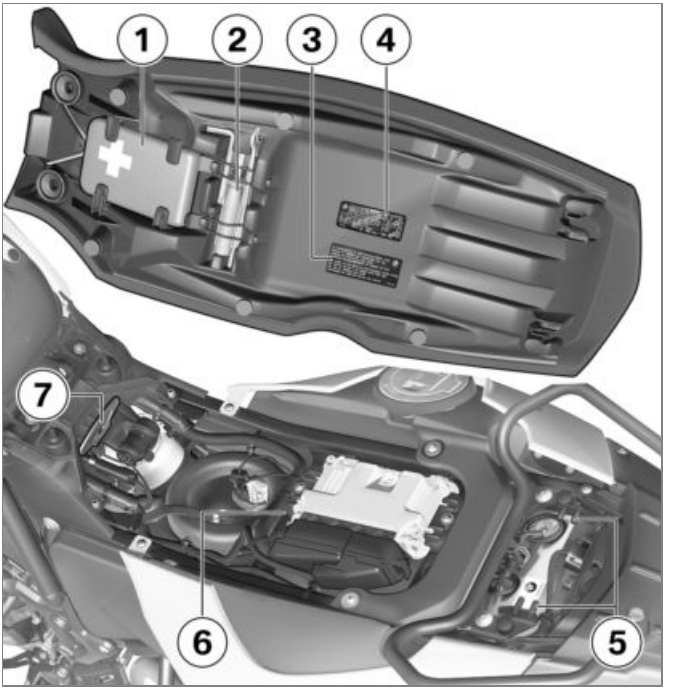
5
6
7

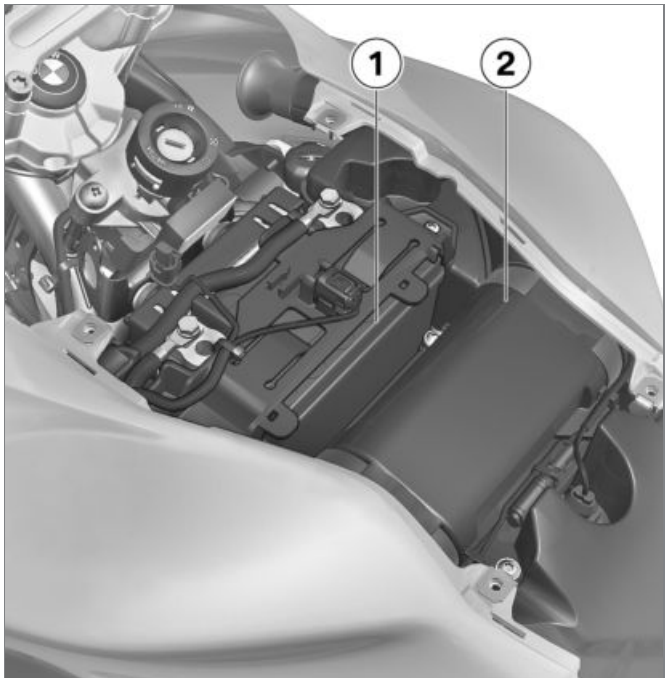
## General view, right side

**1** Fuel filler opening (➠ 83)
**2** Adjusting spring preload (➠ 52)
**3** Brake-fluid reservoir, rear (➠ 110)
**4** Brake-fluid reservoir, front (➠ 109)
**5** Vehicle identification number, type plate (on steering-head bearing)
**6** Coolant level indicator (behind side panel) (➠ 111)
**7** Damping adjustment (➠ 53)

## Underneath seat

**1** Storage space
– with first-aid kit OA
Storing first-aid kit
**2** Standard tool kit (➠ 104)
**3** Payload table
**4** Tire inflation pressure table
**5** Helmet holder (➠ 58)
**6** Rider's Manual (in vehicle rear)
– with anti-theft alarm system (DWA) OE
Rider's Manual (under the control unit) (➠ 59)
**7** Tools for adjusting spring preload (➠ 52)






## Under fairing

**1** Battery (➠ 133)
**2** Air filter housing (➠ 130)

## Multifunction switch, left

**1** High-beam headlight and headlight flasher (➠ 45)

**2** Selecting display readings (➠ 42).
– with onboard computer[OE]
Resetting average data (➠ 43).

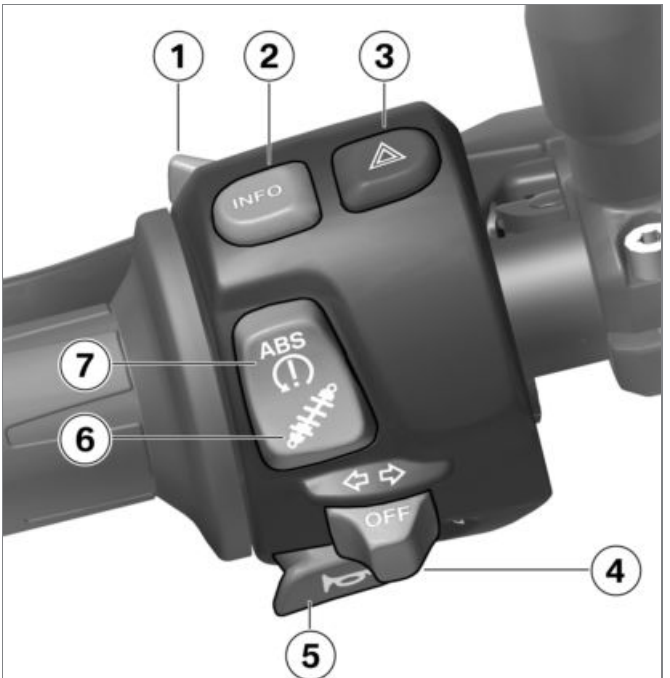
**3** Hazard warning flashers (➠ 46)

**4** Turn indicators (➠ 46)

**5** Horn

**6** – with Electronic Suspension Adjustment (ESA)[OE]
ESA control (➠ 55)

**7** ABS operation (➠ 48)
– with Automatic Stability Control (ASC)[OE]
Operating ASC (➠ 49)

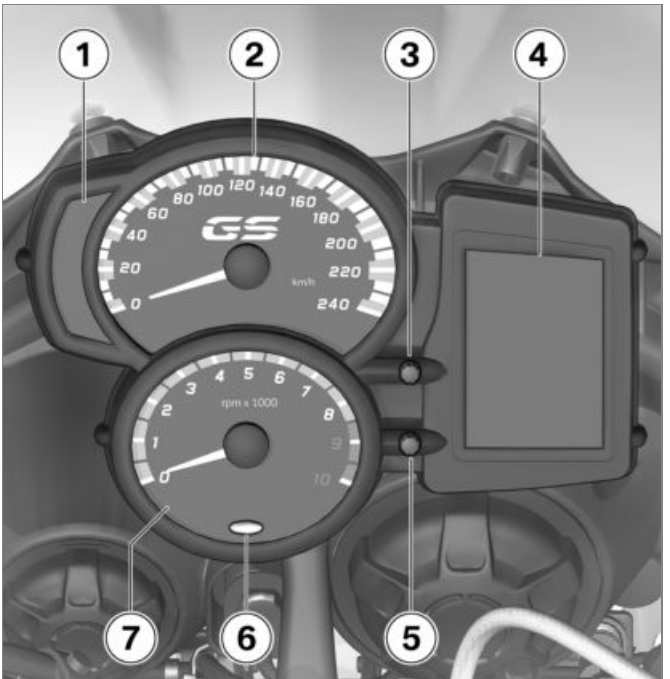



## Multifunction switch, right

**1** – with heated handlebar grips[OE]
Heated grip (➠ 47)
**2** Starter button (➠ 75)
**3** Emergency on/off switch (kill switch) (➠ 47)

## Instrument cluster

**1** Warning and indicator lamps (➠ 24)
**2** Speedometer
**3** Set the clock (➠ 41).
– with onboard computer[OE]
Operation of stopwatch (➠ 43)
**4** Multifunction display (➠ 22)
**5** Selecting display readings (➠ 42).
Reset tripmeter (➠ 43).



**6** Ambient light sensor (for brightness adjustment of instrument lighting)
– with anti-theft alarm system (DWA)[OE]
Anti-theft alarm system indicator lamp (see anti-theft alarm system operating instructions)
– with onboard computer[OE]
Engine speed warning (➠ 79)

**7** Tachometer

**Displays**

## Multifunction display

**1** Warning lamp for electronic engine management (➠ 33)

**2** – with heated handlebar grips OE

Display of the selected heated handlebar grip setting (➠ 47)

**3** – with onboard computer OE

Stopwatch (➠ 43)

**4** Time (➠ 41)

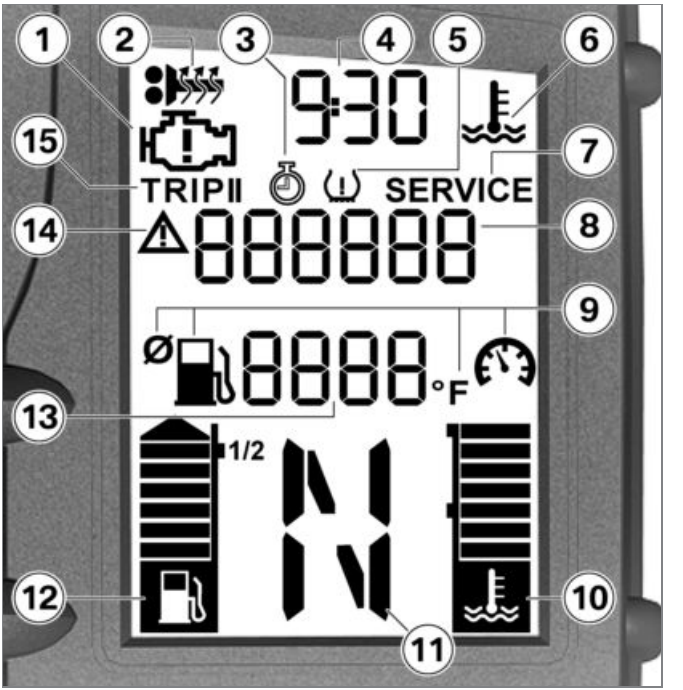
**5** – with Tire Pressure Control (TPC/RDC) OE

Tire inflation pressures (➠ 26)

**6** Coolant-temperature warning indicator (➠ 32)

**7** Service is due (➠ 25)

**8** Reading display range (➠ 42)



**9** – with onboard computer[OE]
Symbols for illustrating display reading (➠ 23)
**10** Coolant temperature display
**11** – With onboard computer (OE)
Gear indicator, "N" is shown for Neutral
**12** Fuel level (➠ 25)
**13** – With onboard computer (OE)
Reading display range (➠ 42)
**14** A warning appears in the reading display range (➠ 27)
**15** Trip odometer (➠ 42)

## Meaning of symbols

– with onboard computer[OE]


Mileage covered since reaching the fuel reserve (➠ 25)


Average fuel consumption


Average speed


Current fuel consumption

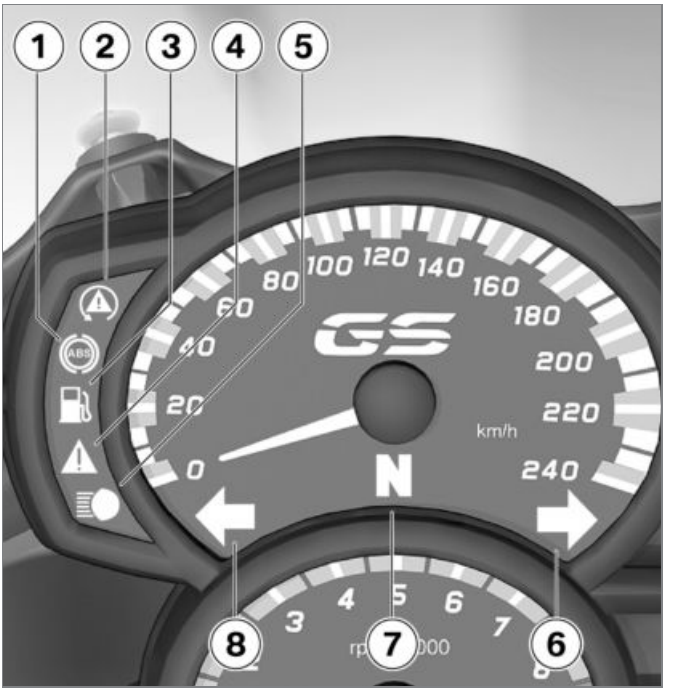

Ambient temperature (➠ 26)

## Warning and indicator lamps

**1** ABS warning lamp (➠ 34)
**2** – with Automatic Stability Control (ASC)[OE]
ASC warning lamp (➠ 35)
**3** Fuel-reserve warning lamp (➠ 25) (➠ 32)
**4** Universal warning lamp, appears together with warnings in display panel (➠ 27)
**5** Headlight high beam indicator lamp
**6** Indicator lamp for right turn indicator
**7** Neutral indicator lamp
**8** Indicator lamp for left turn indicator

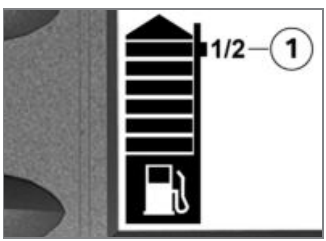
**NOTICE**

The ABS symbol can be shown differently depending on the country.◀



## Fuel level

Due to the complex fuel tank geometry, the fill level cannot be determined in the upper filling range. For this reason, the fuel level indicator only details the lower half of the filling range.




If the fill level indicator reaches the 1/2-mark **1**, the fuel tank is still half full. Now, the fill level is exactly displayed.
If the reserve quantity is reached, the fuel warning lamp is switched on.

## Fuel reserve

The fuel level in the fuel tank, when the fuel warning lamp switches on, depends on the driving dynamics. The more the fuel is moved within the tank (due to frequently changing inclined positions, frequent braking and accelerating), the more difficult it is to determine the reserve quantity. For this reason, the reserve quantity cannot be accurately indicated.

– with onboard computer OE

After the fuel warning lamp is switched on, the distance driven since this point in time is indicated.
The distance, which can still be driven with the reserve quantity, depends on the driving style (on the consumption) and on the fuel level, when the warning lamp was switched on.

The odometer for the fuel reserve is reset, if the fuel level is greater than the reserve quantity after refueling.

## Service display


If the time remaining until the next service will elapse within one month, the service date **1** appears briefly following the pre-ride check. The month and year are shown with two and four digits respectively separated by a colon. In this example the display means "June 2014".


If the vehicle covers high annual mileages then shorter service intervals may be required. When the odometer reading for the recalculated early service falls to within 621 miles (1,000 km), the remaining miles (kilometers) **1** are counted down in 62-mile (100 km) increments and briefly displayed following the pre-ride check.

When a service date elapses without service, the general warning lamp lights up in yellow, appearing together with the date and mileage (kilometer) display. The "Service" message is displayed continuously.

**NOTICE**

If the service display appears more than a month before the service date, the stored date must be adjusted in the instrument cluster. This situation can occur if the battery has been disconnected for a longer time. Consult a certified workshop, preferably an authorized BMW Motorrad retailer, for setting of the date.◀

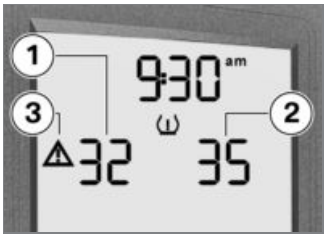
## Ambient temperature

– with onboard computer OE

Engine heat can lead to spurious readings of ambient temperature when the motorcycle is stationary. When the effects of engine heat on the monitored temperature become excessive the display responds by temporarily reverting to −− as the display reading.
When ambient temperatures drop below 37°F (3°C) the temperature display responds by flashing a warning indicating possible ice formation on the road surface. The display automatically switches from any other mode to the temperature reading when the temperature drops below this threshold for the first time.

## Tire inflation pressures

– with Tire Pressure Control (TPC/RDC) OE




The displayed tire inflation pressures refer to a tire temperature of 68 °F (20 °C). The figure on the left side **1** indicates the front tire's inflation pressure, while the figure on the right **2** shows the inflation pressure in the rear tire. Immediately after switching on the ignition, "–– ––" is displayed, as the transfer of the inflation pressure values does not begin until a speed of 19 mph (30 km/h) is exceeded for the first time.

If the warning triangle **3** is also shown, a warning display is concerned. Critical inflation pressure flashes.
The universal warning lamp lights up in yellow when the critical figure is at the limit of the approved tolerance range. If the monitored tire inflation pressure is outside the specified range the general warning lamp will flash in red.

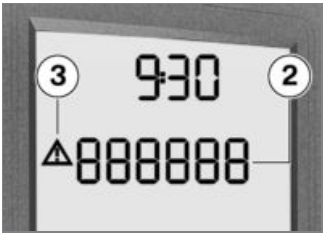
Additional information on the BMW Motorrad Tire Pressure Monitor is provided starting on page (➠ 91).

## Warning lights

### Display

Warnings are displayed with the corresponding warning lamps.


Warnings for which no separate warning lamp is available, are indicated using the 'General' warning lamp **1** in conjunction with a warning or a warning symbol in the multifunction display. The universal warning lamp shows red or yellow, depending on the urgency of the warning.




If the display in the value area **2** shows a warning, then this is symbolized with the warning triangle **3**. These warnings can be displayed in alternation with the odometers (➠ 42).

The universal warning lamp lights up for the most urgent warning.

The following page contains a list of potential warnings.

## Overview of warning indicators

| Warning and indicator lamps | Warning symbols in the display panel | Meaning |
|---|---|---|
|  lights up yellow |  + "EWS" is indicated | Electronic immobilizer is active (➠ 32) |
|  lights up | | Fuel down to reserve (➠ 32) |
|  lights up red |  flashes | Coolant temperature too high (➠ 32) |
|  lights up yellow |  appears on the display | Engine in emergency-operation mode (➠ 33) |
|  lights up yellow |  + "LAMP" is indicated | Bulb defective (➠ 33) |
| | "x.x °F" flashes | Outside temperature warning (➠ 34) |
|  lights up yellow |  + "DWA" is indicated | DWA battery drained (➠ 34) |
|  flashes | | ABS self-diagnosis not completed (➠ 34) |

| Warning and indicator lamps | Warning symbols in the display panel | Meaning |
|---|---|---|
|  lights up | | ABS deactivated (➠ 34) |
|  lights up | | ABS error (➠ 35) |
|  flashes rapidly | | ASC intervention (➠ 35) |
|  flashes slowly | | ASC self-diagnosis not completed (➠ 35) |
|  lights up | | ASC deactivated (➠ 35) |
|  lights up | | ASC error (➠ 35) |
|  lights up yellow |  + "x.x" flashes | Tire inflation pressure in limit area of permissible tolerance (➠ 36) |
|  flashes red |  + "x.x" flashes | Tire inflation pressure outside permissible tolerance (➠ 36) |

| Warning and indicator lamps | Warning symbols in the display panel | Meaning |
|---|---|---|
| |  + "−−" or "−− −−" is indicated | Transmission error (➠ 37) |
|  lights up yellow |  + "−−" or "−− −−" is indicated | Sensor defective or system fault (➠ 37) |
|  lights up yellow |  + "RdC" is indicated. | Battery of tire-inflation pressure sensor weak (➠ 38) |

## Electronic immobilizer is active

General warning light shows yellow.

+ "EWS" is indicated.

Possible cause:

The key being used is not authorized for starting, or communication between the key and engine electronics is disrupted.

- Remove other motorcycle keys from the ignition key ring.
- Use the reserve key.
- Have the defective key replaced, preferably by an authorized BMW Motorrad retailer.

## Fuel down to reserve

Fuel-reserve warning light lights up.

**WARNING**

**Rough engine running or switching off of the engine due to a fuel shortage.**

Accident hazard. Damage to the catalytic converter.

- Do not drive to the extent that the fuel tank is completely empty.◀

Possible cause:

At the most, the fuel tank still contains the reserve fuel quantity.

| Reserve fuel quantity |
| --- |
| min 2.9 quarts (min 2.7 l) |

- Refueling procedure (➠ 83).

## Coolant temperature too high

General warning light shows red.

Temperature symbol flashes.

**ATTENTION**

**Riding with overheated engine.**

Engine damage

- Be sure to observe the measures listed below.◀

Possible cause:

Coolant level is too low.

- Checking coolant level (➠ 111).

If coolant level is too low:

- Topping up coolant (➠ 111).

Possible cause:

The coolant temperature is too high.

- If possible, continue driving in the part-load range to cool down the engine.
- In traffic jams, switch off the engine, but keep the ignition

switched on so that the radiator fan continues to operate.
- Should the coolant temperature frequently be too high, have the fault rectified as quickly as possible by an authorized workshop, preferably an authorized BMW Motorrad retailer.

## Engine in emergency-operation mode


General warning light shows yellow.


Engine symbol appears on the display.

**WARNING**

**Unusual handling when engine is no emergency operating mode.**

Accident hazard

- Adapt your style of riding accordingly.
- Avoid rapid acceleration and passing maneuvers.◀

Possible cause:

The engine control unit has diagnosed a fault. In exceptional cases, the engine stops and can no longer be started. Otherwise, the engine runs in the emergency operating mode.

- Continued driving is possible, however the accustomed engine performance may not be available.
- Have the malfunction corrected as soon as possible at an authorized workshop, preferably an authorized BMW Motorrad retailer.

## Bulb defective


General warning light shows yellow.


+ "LAMP" is indicated.

**WARNING**

**Overlooking the motorcycle in traffic due to the light source on the motorcycle failing.**

Safety risk

- Replace defective bulbs as soon as possible; it is best always to carry a complete set of spare bulbs on the motorcycle.◀

Possible cause:

Bulb defective.

- Locate defective bulb with visual check.
- Replacing low-beam and high-beam bulb (➠ 124).
- Replacing parking light bulb (➠ 125).
- Replace the LED for brake and rear light (➠ 126).
- Replacing front and rear turn indicator light sources (➠ 127).

## Outside temperature warning

– with onboard computer[OE]

"x.x °F" (the ambient temperature) flashes.

Possible cause:

The ambient temperature measured at the motorcycle is lower than 37 °F (3 °C).

**WARNING**

**Danger of black ice even above 37 °C (3 °C), despite the lack of ice warning.**

Risk of accident due to black ice.

- At a low outside temperature, icy conditions must expected on bridges and in shady road areas.◀
- Think well ahead when driving.

## DWA battery drained

– with anti-theft alarm system (DWA)[OE]

General warning light shows yellow.

+ "DWA" is indicated.

**NOTICE**

This fault message is only shown for a short time immediately following the Pre-Ride-Check.◀

Possible cause:

The anti-theft alarm system battery has no capacity. The operation of the anti-theft alarm system is no longer ensured with the vehicle battery disconnected.

- Contact a specialist service facility, preferably an authorized BMW Motorrad retailer.

## ABS self-diagnosis not completed

ABS indicator light flashes.

Possible cause:

The ABS is not available because the self-diagnosis has not been completed. To check the wheel sensors, the motorcycle must be driven a few yards.

- Ride off slowly. It must be noted that the ABS function is not available until the self-diagnosis has been completed.

## ABS deactivated

ABS indicator light lights up.

Possible cause:

The ABS system has been deactivated by the driver.

- Switch on ABS function (➠ 49).

## ABS error


ABS indicator light lights up.

Possible cause:

The ABS control unit has detected an error.

- It remains possible to continue riding. It must be noted that the ABS function is not available. Observe additional information on special situations which can lead to ABS fault codes (➠ 89).
- Have the malfunction corrected as soon as possible at an authorized workshop, preferably an authorized BMW Motorrad retailer.

## ASC intervention

– with Automatic Stability Control (ASC)[OE]


ASC indicator and warning light flashes rapidly.

ASC has detected instability at the rear wheel and responded by reducing the torque. The warning lamp flashes longer than the ASC intervention lasts. This feature continues to furnish the rider with visual feedback confirming that the system has initiated active closed-loop intervention even after the critical situation has passed.

## ASC self-diagnosis not completed

– with Automatic Stability Control (ASC)[OE]


ASC indicator and warning light flashes slowly.

Possible cause:

The self-diagnosis was not completed; the ASC function is not available. So that the ASC self-diagnosis can be completed, the engine must be running and the motorcycle must be moved at a speed of at least 3.1 mph (5 km/h).

- Ride off slowly. It must be noted that the ASC function is not available until the self-diagnosis has been completed.

## ASC deactivated

– with Automatic Stability Control (ASC)[OE]


ASC indicator and warning light lights up.

Possible cause:

The ASC system has been deactivated by the driver.

- Switch on ASC.

## ASC error

– with Automatic Stability Control (ASC)[OE]

 ASC indicator and warning light lights up.

Possible cause:

The ASC control unit has detected an error. The ASC function is not available.

- It remains possible to continue riding. Please be aware that ASC functionality is no longer available. Observe additional information on situations which can lead to an ASC error (➠ 90).
- Have the malfunction corrected as soon as possible at an authorized workshop, preferably an authorized BMW Motorrad retailer.

## Tire inflation pressure in limit area of permissible tolerance

– with Tire Pressure Control (TPC/RDC)[OE]

 General warning light shows yellow.

 + "x.x" (the critical inflation pressure) flashes.

Possible cause:

The measured tire inflation pressure is in the limit area of the permissible tolerance.

- Correct tire inflation pressure in accordance with instructions on back of cover of Rider's Manual.

**NOTICE**

Before adjusting the tire inflation pressure, observe the information on temperature compensation and on inflation pressure adjustment in the chapter "Technology in detail".◀

## Tire inflation pressure outside permissible tolerance

– with Tire Pressure Control (TPC/RDC)[OE]

 General warning light flashes red.

 + "x.x" (the critical inflation pressure) flashes.

Possible cause:

The measured tire inflation pressure is outside the approved tolerance range.

- Check tire for damage and suitability for continued use.

If it is still possible to drive with tire:

**WARNING**

**Tire inflation pressure is outside approved range.**

Poorer handling characteristic of the motorcycle.

- Adapt your style of riding accordingly.◀
- Correct tire inflation pressure at the next opportunity.
- Have the tire checked for damage at an authorized service facility, preferably an authorized BMW Motorrad retailer.

If you are unsure about the tire's suitability for continued riding:

- Do not continue riding.
- Contact roadside service.
- Have the tire checked for damage at an authorized service facility, preferably an authorized BMW Motorrad retailer.

### Transmission error

– with Tire Pressure Control (TPC/RDC)[OE]


+ "––" or "–– ––" is indicated.

Possible cause:

The vehicle's speed has not exceeded the threshold of approx. 19 mph (30 km/h). The TPC/RDC sensors do not transmit their signal until a speed above this threshold is reached (➠ 91).

- Watch the RDC display at a higher rate of speed. A continuous error is only present if the general warning lamp also lights up. In this case:
- Have fault eliminated at a specialist service facility, preferably an authorized BMW Motorrad retailer.

Possible cause:

There is a fault in the radio connection to the TPC/RDC sensors. Possible causes are radio systems in the surrounding area, which interfere with the connection between the TPC/RDC control unit and the sensors.

- Watch the TPC/RDC display in another environment. A continuous error is only present if the general warning light also lights up.

In this case:

- Have fault eliminated at a specialist service facility, preferably an authorized BMW Motorrad retailer.

### Sensor defective or system fault

– with Tire Pressure Control (TPC/RDC)[OE]


General warning light shows yellow.


+ "––" or "–– ––" is indicated.

Possible cause:

Wheels without RDC sensors are mounted.

- Retrofit wheel set with RDC sensors.

Possible cause:

1 or 2 RDC sensors have failed.

- Have fault eliminated by a specialized workshop, preferably an authorized BMW Motorrad retailer.

Possible cause:

A system fault has occurred.

- Have fault eliminated at a specialist service facility, preferably an authorized BMW Motorrad retailer.

## Battery of tire-inflation pressure sensor weak

– with Tire Pressure Control (TPC/RDC)[OE]

General warning light shows yellow.

+ "RdC" is indicated.

**NOTICE**

This fault message is only shown for a short time immediately following the Pre-Ride-Check.◀

Possible cause:

The battery of the tire inflation pressure sensor has almost no capacity anymore. The operation of the tire inflation pressure control is only ensured for a limited time.

- Contact a specialist service facility, preferably an authorized BMW Motorrad retailer.

**Operation**

# Ignition switch

## Vehicle keys

You are provided with 2 ignition keys.

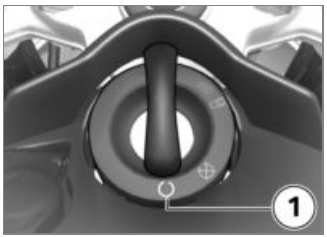
Should you lose your keys please refer to the information regarding the electronic immobilizer (EWS) (➠ 41).

The ignition lock, fuel filler cap and seat lock are operated with the same key.

– with case[OA]
– with Topcase[OA]

The cases and the topcase can also be ordered with locks for the same key on request. Please contact an authorized workshop for this purpose, preferably an authorized BMW Motorrad retailer.

## Switching on ignition



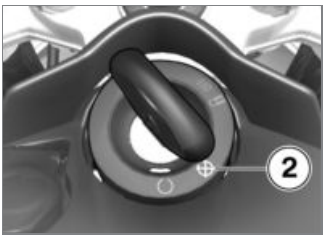

- Turn key to position **1**.

» Parking lights and all function circuits switched on.
» Engine can be started.
» Pre-Ride Check in progress (➠ 76)
» ABS self-diagnosis is performed (➠ 77).

– with Automatic Stability Control (ASC)[OE]

» ASC self-diagnosis in progress (➠ 77).◁

## Switching off ignition

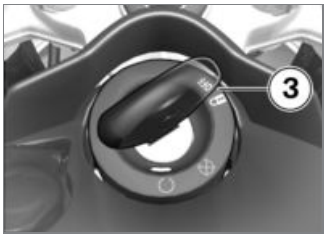



- Turn key to position **2**.

» Light switched off.
» Handlebars not locked.
» Key can be removed.
» Electrically powered accessories remain operational for a limited period of time.
» Battery can be recharged via onboard socket.

## Locking handlebars

- Turn handlebars to left.




- Turn key to position **3** while moving handlebars slightly.

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

## Electronic immobilizer

The motorcycle's electronic circuitry monitors the data stored in the ignition key through a ring antenna incorporated in the ignition lock. The engine management system does not enable engine starting until this key is recognized as "authorized" for your motorcycle.

**NOTICE**

A further 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 is shown in the multifunction display.
Always store further vehicle keys separately from the ignition key.◀

If you lose a motorcycle key, you can have it disabled by your authorized BMW Motorrad Retailer. When having a key disabled you should also bring all of the motorcycle's remaining keys with you.
The engine can no longer be started using a disabled key; however, a disabled key can be enabled again.

Emergency and spare keys are only available through an authorized BMW Motorrad retailer. The keys are part of an integrated security system, so the retailer is under an obligation to check the legitimacy of all applications for replacement/extra keys.

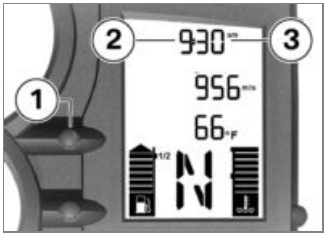
## Clock

### Setting the clock

**WARNING**

**Adjusting the clock while riding.**
Accident hazard

- Adjust the clock only when the motorcycle is stationary.◀
- Switch on ignition.



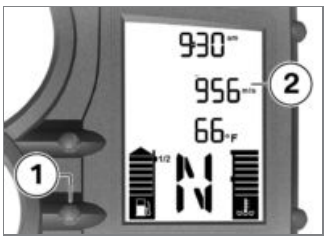

- Press and hold button **1** until hours **2** flash.
- Press button repeatedly until desired hours are shown.
- Press and hold button until minutes **3** flash.
- Press button repeatedly until desired minutes are shown.
- Press and hold button until minutes no longer flash.

» Setting is completed.

## Display

### Selecting display readings

- Switch on ignition.



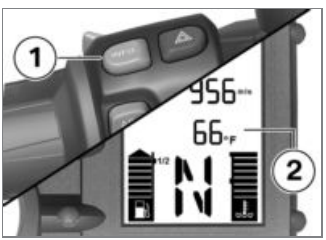

- Press button **1** to select the display in value area **2**.

The following values can be indicated:

– Odometer (in illustration)
– Trip distance recorder 1 (`Trip I`)
– Trip distance recorder 2 (`Trip II`)
– with Tire Pressure Control (TPC/RDC)[OE]

Tire inflation pressures◁

– Warnings if necessary
– with onboard computer[OE]




- Press button **1** to select the display in value area **2**.

The following data can be displayed:

– Ambient temperature (°F)
– Average speed in mph

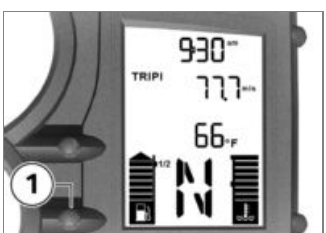
Average consumption in mpg

Current fuel consumption in mpg

Distance driven since reaching reserve quantity in mls◁

## Resetting tripmeter

- Switch on ignition.
- Select desired trip odometer.




- Press and hold button **1** until trip odometer has been reset.

## Resetting average data

– with onboard computer[OE]

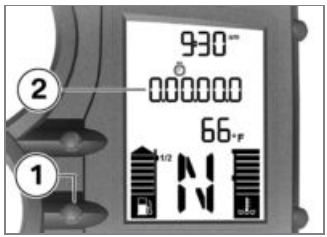
- Switch on ignition.
- Select average fuel consumption or average speed.


- Press and hold button **1** until displayed value has been reset.

## Stopwatch

– with onboard computer[OE]

## Stopwatch

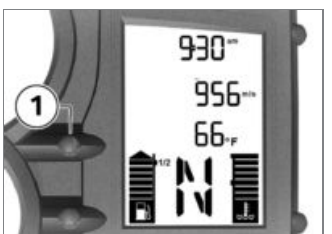



As an alternative to the odometer, the stopwatch **2** can be displayed. The display consists of hours, minutes, seconds and tenths of a second separated by dots.

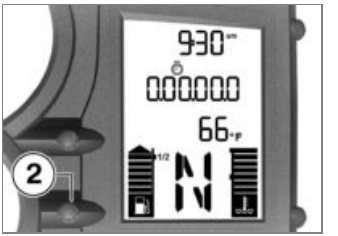
In enable improved operation of the stopwatch while driving (as a lap timer), the functions of the button **1** and the functions of the INFO button on the handlebar can be interchanged. The stopwatch and the odometer are then operated with the INFO button;

the onboard computer must be operated with the button **1**. The stopwatch continues to run in the background when the display is temporarily switched over to the odometer. The stopwatch also continues to run when the ignition is temporarily switched off.

## Operating stopwatch

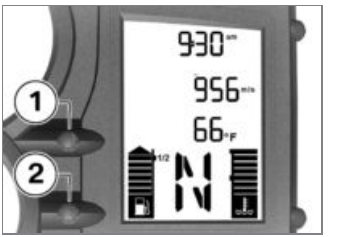



- If necessary, switch over from odometer to stopwatch with button **1**.




- With stopwatch stopped, press button **2** to start stopwatch.
- With stopwatch running, press button **2** to stop stopwatch.
- Press and hold button **2** to reset stopwatch.

## Interchanging button functions




- Press and hold button **1** and button **2** simultaneously until display changes.

» FLASH (engine speed warning indicator) and ON or OFF are shown.

- Press button **2**.

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

- Press button **1** repeatedly until desired state is shown.

» ON: Operation of stopwatch with INFO button on handlebar fitting.

» OFF: operation of stopwatch with button **2** in instrument cluster.
- To save the setting made, press and hold button **1** and button **2** simultaneously until the display changes.

## Lights

### Parking lights

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

**NOTICE**

The parking lights are a strain on the battery. Do not leave the ignition switched on longer than absolutely necessary.◀

### Headlight low beam

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

– If the engine was started.
– If the vehicle is pushed while the ignition is switched on.

**NOTICE**

With the engine switched off, you can switch on the lights by switching on the high-beam headlight with the ignition switched on or by operating the headlight flasher.◀

### High-beam headlight and headlight flasher


- Press switch **1** toward front to switch on high beams.
- Pull switch **1** rearward to actuate headlight flasher.

### Parking lamp

- Switch off ignition.


- Immediately after switching off the ignition push button **1** to the left and hold until the parking lamps come on.
- Switch ignition on and then off again to switch off parking lamp.

## Turn indicators

### Operating turn indicators

- Switch on the ignition.

**NOTICE**

The turn indicators automatically switch off when the defined driving time and distance have been reached.◀


- Press button **1** to left to switch on left-side turn indicators.
- Press button **1** to right to switch on right-side turn indicators.
- Press button **1** into center position to switch off turn indicators.

## Hazard warning flashers

### Operating hazard warning flashers

- Switch on ignition.

**NOTICE**

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

**NOTICE**

If a turn indicator button is pressed with the emergency flashing function switched on, the flashing function replaces the emergency flashing function as long as the button is pressed. If the turn indicator button is released, the emergency flasher function becomes active again.◀


- Press button **1** to switch on hazard warning flashers.

» Ignition can be switched off.

- Press button **1** again to switch off hazard warning flashers.

## Emergency on/off switch (kill switch)


**1** Emergency on/off switch (kill switch)

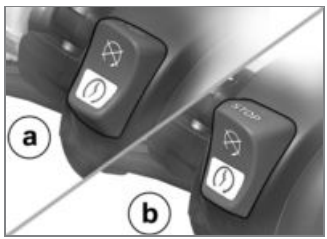
**⚠ WARNING**

**Operation of the emergency ON/OFF switch when riding.**

Danger of falling due to blocking of rear wheel.

- Do not operate the emergency ON/OFF switch when riding.◀

The engine can be switched off easily and quickly using the emergency on/off switch.




**a** Engine switched off
**b** Operating position

## Heated handlebar grips

– with heated handlebar grips OE

### Operate the heated handlebar grips

- Start engine.

**NOTICE**

The heated grips option can only be activated when the engine is running.◀

**NOTICE**

The increase in power consumption caused by the heated grips can drain the battery if you are riding at low engine speeds. If the battery is inadequately charged, the heated grips are switched off to ensure starting capability.◀


- Press button **1** repeatedly until desired heating level is shown.


The handlebar grips can be heated at two different levels. The second level **2** is used for fast heat-up of the grips; then the switch should be switched back to the first level.

50 % heating output

100 % heating output

» If no further changes are made the selected heating level is adopted as the setting.

## BMW Motorrad ABS

### Switch off ABS function

- Stop motorcycle or switch on ignition with motorcycle stationary.


- Press and hold button **1** until ABS warning lamp's display changes.

ABS indicator light lights up.

– with Automatic Stability Control (ASC)[OE]

» First the ASC symbol changes its display behavior. Press and hold button **1** until ABS warning lamp reacts. In this case, the ASC setting does not change.◁

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

ABS indicator light continues to be lit up.

» ABS function is switched off.

### Switch on ABS function


- Press and hold button **1** until ABS warning lamp's display changes.

ABS indicator light goes out, and starts to flash if self-diagnosis has not been completed.

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

ABS indicator light remains off or continues to flash.

» ABS function is switched on.

- As an alternative, the ignition can also be switched off and then on again.

**NOTICE**

If the ABS indicator light lights up after switching the ignition off and on and then continuing to ride at more than 5 km/h, an ABS fault has occurred.◀

## BMW Motorrad ASC

– with Automatic Stability Control (ASC)[OE]

### Deactivate ASC function

- Switch on ignition.

**NOTICE**

The ASC function can also be deactivated while driving.◀


- Press the **1** button and continue to hold it down until the status indicated by the ASC warning lamp changes.

ASC indicator and warning light lights up.

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

ASC indicator and warning light continues to be lit up.

» ASC function is deactivated.

### Activate ASC function


- Press the **1** button and continue to hold it down until the status indicated by the ASC warning lamp changes.

ASC indicator and warning light goes out, and starts to flash if self-diagnosis has not been completed.

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

ASC indicator and warning light remains off or continues to flash.

» ASC function is activated.

- As an alternative, the ignition can also be switched off and then on again.

**NOTICE**

If the ASC indicator and warning light lights up after switching the ignition off and on and then continuing to ride at more than 3 mph (5 km/h), an ASC fault has occurred.◀

## Clutch

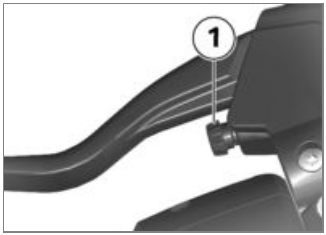
### Adjusting clutch lever

**WARNING**

**Adjusting the clutch lever while driving.**

Accident hazard

- Only adjust the clutch lever when the motorcycle is stationary.◀




- Turn adjusting screw **1** clockwise to increase distance between clutch lever and handlebar grip.
- Turn adjusting screw **1** counterclockwise to decrease distance between clutch lever and handlebar grip.

**NOTICE**

The adjusting screw can be turned more easily if you press the clutch lever forward when doing so.◀

## Brakes

### Adjusting handbrake lever

**WARNING**

**Modified position of the brake-fluid reservoir.**

Air in the brake system.

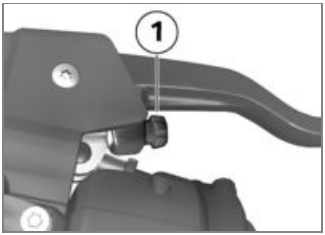
- Do not twist the handlebar fitting or the handlebars.◀

**WARNING**

**Adjusting the brake lever while driving.**

Accident hazard

- Only adjust the brake lever when the motorcycle is stationary.◀




- Turn adjusting screw **1** clockwise to increase distance between brake lever and handlebar grip.
- Turn adjusting screw **1** counterclockwise to decrease distance between brake lever and handlebar grip.

**NOTICE**

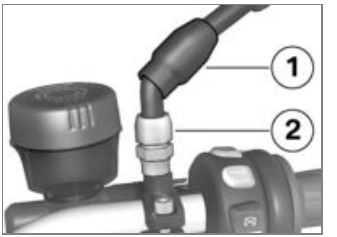
The adjusting screw can be turned more easily if you push the brake lever forward when doing so.◀

# Mirrors

## Adjusting mirrors

- Move mirror to the desired position by turning it.

## Adjusting mirror arm




- Slide protective cap **1** up over screw connection on mirror arm.
- Loosen the nut **2**.
- Turn mirror arm into desired position.
- Tighten the nut to the specified torque while holding the mirror arm to ensure that it does not move out of position.

| Locknut (mirror) on clamping piece |
|---|
| Joint compound: Multi-Wax Spray |

| Locknut (mirror) on clamping piece |
|---|
| 15 lb/ft (20 Nm) |

- Slide protective cap over threaded fastener.

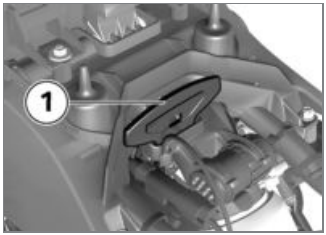
# Spring preload

## Setting

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

## Adjusting spring preload at rear wheel

- Remove seat (➠ 57).




• Remove toolkit **1**.


**⚠ WARNING**

**Uncoordinated settings of spring preload and spring strut damping.**

Poorer handling.

- Adjust damping characteristic to changed spring preload.◀
- To increase spring preload, turn adjustment wheel **2** clockwise using toolkit.
- To decrease spring preload, turn adjustment wheel **2** counterclockwise using toolkit.

| Basic setting of spring preload, rear |
|---|
| Turn adjustment wheel counterclockwise as far as possible (One-up without load) |
| Turn adjustment wheel as far as possible counterclockwise, then 12 turns clockwise (One-up with load) |
| Turn adjustment wheel clockwise as far as possible (Two-up with load) |
| – with lowered suspension OE |

| Basic setting of spring preload, rear |
|---|
| Turn adjustment wheel as far as possible counterclockwise, then 5 clicks back (One-up without load)◁ |

- Remount toolkit.
- Installing seat (➠ 58).

## Damping

### Setting

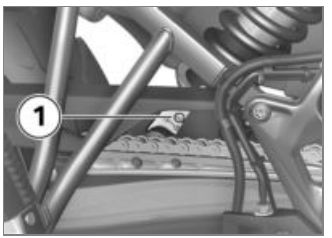
Damping must be adjusted to the road conditions and the spring preload.

– A rough road surface requires softer damping than a smooth road surface.

– An increase in spring preload requires firmer damping, a reduction in spring preload requires softer damping.

## Adjust damping on rear wheel

- Make sure ground is level and firm and park motorcycle.




- Adjust damping via adjusting screw **1**.


- To increase damping, turn adjusting screw **1** in arrow direction H.
- To decrease damping, turn adjusting screw **1** in arrow direction S.

| Basic setting of rear wheel rear-wheel damping |
|---|
| – without Electronic Suspension Adjustment (ESA)[OE] |

| Basic setting of rear wheel rear-wheel damping |
|---|
| Turn adjusting screw as far as possible clockwise, then turn back 1.5 turns (One-up without load) |
| Turn adjusting screw as far as possible clockwise, then turn back 1.5 turns (One-up with load) |
| Turn adjusting screw as far as possible clockwise, then turn back 1 turn (Two-up with load)◁ |

## ESA Electronic Suspension Adjustment

– with Electronic Suspension Adjustment (ESA)[OE]

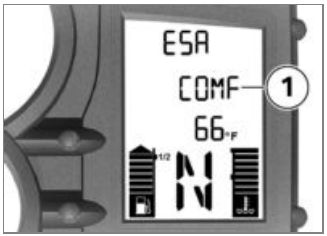
## Adjustment options

You can use the ESA Electronic Suspension Adjustment feature to adapt damping on the rear wheel to the road surface. Three damping settings are available.

## Calling up settings

- Switch on ignition.


- Press button **1** to display current adjustment.




The adjusted damping is shown in the multifunction display, in area **1**. The displays provide the following information:

– COMF comfortable damping
– NORM normal damping
– SPORt sporty damping

» The display is automatically hidden again after a short time.

## Adjust the chassis

- Switch on ignition.


- Press button **1** to display current adjustment.

In order to adjust different damping:

- Press button **1** repeatedly until desired setting is displayed.

**NOTICE**

The damping cannot be adjusted while the motorcycle is being ridden.◀

» If button **1** is not pressed for a longer time, damping is set as indicated.

» The ESA display disappears once the adjustment procedure has been completed.

## Tires

### Checking tire pressure

**⚠ WARNING**

**Incorrect tire inflation pressure.**
Poorer handling characteristic of the motorcycle. Reduced life of tires.

- Ensure proper tire inflation pressure.◀

**⚠ WARNING**

**Automatic opening of vertically installed valve cores at high speeds.**
Sudden loss of tyre inflation pressure.

- Use valve caps with rubber sealing ring and screw on firmly.◀
- Park motorcycle, ensuring that support surface is firm and level.
- Check tire pressures against data below.

|  Tire pressure, front |
|---|
| 31.9 psi (2.2 bar) (One-up, with cold tires) |
| 31.9 psi (2.2 bar) (Driver with passenger and/or load, with cold tire) |

|  Tire pressure, rear |
|---|
| 36.3 psi (2.5 bar) (One-up, with cold tires) |
| 42.1 psi (2.9 bar) (Driver with passenger and/or load, with cold tire) |

If tire pressure is too low:

- Correct tire pressure.

## Headlight

### Adjusting headlight for RHD/LHD traffic

This motorcycle's headlight features a symmetrical low beam. No special adjustments or procedures are required prior to operating the motorcycle in a country where traffic travels on the side of the road opposite to that of your home country (left-hand drive to right-hand drive or vice versa).

### Headlight range and spring preload

The headlight range generally remains constant due to the adjustment of the spring preload to the loading state.
Spring preload adjustment may only be insufficient when the mo-

torcycle is very heavily loaded. In this case, the headlight range must be adjusted to the weight.

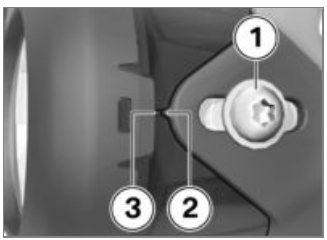
**NOTICE**

If there are doubts as to the correct headlight range, have the adjustment checked by a specialized workshop, preferably by an authorized BMW Motorrad retailer.◀

### Adjusting headlight range


- Loosen screws **1** on left and right.
- Adjust headlight by tilting slightly.
- Tighten screws **1** on left and right.

### Basic headlight range adjustment



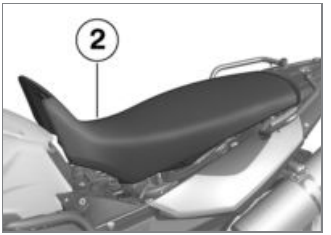

- Loosen screws **1** on left and right.
- Adjust headlight by tilting slightly so that tip **2** points to marking **3**.
- Tighten screws **1** on left and right.

## Seat

### Remove seat

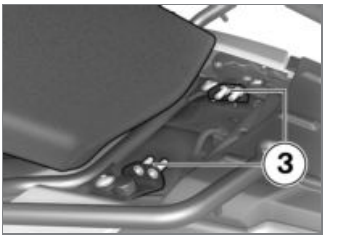
- Make sure ground is level and firm and park motorcycle.


- Turn seat lock **1** to left with ignition key and hold while pressing seat downward at front to support movement.




- Raise seat **2** at front and release key.
- Take off seat and place on a clean surface with rubber buffers facing downward.

### Installing seat



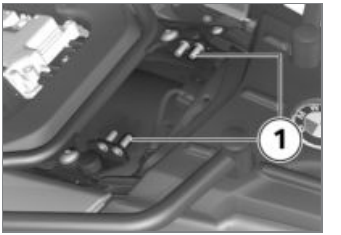

- Insert seat in brackets **3**.
- Firmly press down on seat at front.

» The seat's detent mechanism will be heard to engage.

## Helmet holder

### Locking helmet on motorcycle

- Remove seat (➠ 57).




- Secure helmet on helmet holder **1** on left or right using a steel cable.

**ATTENTION**

**Fastening the helmet on the left-hand side of the motorcycle.**

Damage caused by hot rear silencer.

- Fasten the helmet to the right-hand side of the motorcycle if possible.◀

**ATTENTION**

**Incorrect positioning of the helmet lock.**

Fairing scratched.

- When hooking on the helmet, watch the position of the helmet lock.◀
- Guide steel cable through helmet and bracket and position as shown.
- Installing seat (➠ 58).

## Rider's Manual (US Model)

### Stowing the Owner's Manual

- Place Owner's Manual(s) into the provided bag.


- Tightly fold the open side of the bag several times and close subsequently using Velcro fastener **1**.
- Stow bag in the vehicle rear.

– with anti-theft alarm system (DWA) OE


- Slightly lift wires **2**.
- Slide bag backwards under the wires and the rear frame strut **3**, until the rolled-up edge of the bag is under the rear frame strut.
- Remove protective foil **4** and attach the piece of Velcro to ensure that the bag cannot slip further to the back.◁

**Anti-theft alarm system DWA**

## Overview

– with anti-theft alarm system (DWA) OE

## General information on DWA

Any attempt to move the motorcycle, change its position, start it without authorization or disconnect the motorcycle battery, results in the alarm being triggered. The sensitivity of the system is designed so that minor vibrations of the motorcycle do not trigger an alarm. Each theft attempt is signaled following activation of the system acoustically with the siren and optically with synchronized flashing of all 4 turn indicators.

You can adjust the behavior of your DWA in partial areas to meet your needs.

### Protection of motorcycle battery

To protect the motorcycle battery and to maintain the starting capability, the activated DWA switches off automatically after several days. However, it remains active for at least 10 days.

### Radio interference

Radio systems or devices which transmit on the same frequency as the remote control of the DWA can interfere with its function. With corresponding problems point the remote control at the motorcycle from a different direction.

## Controls


**1** LED
**2** Right-hand button (➠ 64)
**3** Left-hand button (ribbed) (➠ 63)

## Activation

– with anti-theft alarm system (DWA) OE

## Activation with motion sensor


The alarm function will be activated

– by pressing the button **1** of the remote control once or
– by switching off the ignition (if programmed); after the ignition is switched off, 30 seconds pass until the activation phase.

Activation is confirmed

– by the turn indicators lighting up twice and
– with a double alarm tone.

If the alarm function is to be activated after the ignition has been switched off for more than one minute, then the button **1** must be pressed for longer than one second.

## Activation phase

The anti-theft alarm system requires 15 seconds until it is completely activated. No alarm triggering takes place during this time.

## Protection of the battery in the control unit (anti-theft alarm system activated)


If the alarm function is to be activated after the ignition has been switched off for more than one minute, then the button **1** must be pressed for longer than one second. After approx. one hour in the deactivated state, the DWA switches off to protect the battery. To activate the alarm function after this period, the ignition must be switched on and then off again.

### Motion sensor when transporting the motorcycle

If, for example, the motorcycle is to be transported by train, it is advisable to switch off the motion sensor. The strong movements could result in an accidental triggering of the alarm.

### Deactivating motion sensor


- Press button **1** of the remote control again during the activation phase.

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

## Alarm function

– with anti-theft alarm system (DWA)[OE]

### Alarm triggering

The alarm can be set off by:
– the motion sensor
– Switching on the ignition with an unauthorized key
– Disconnection of the DWA from the motorcycle battery (DWA battery assumes the power supply).

### Alarm


The duration of the alarm is 26 seconds. The system is reactivated after another 12 seconds. A triggered alarm can be interrupted at any time by pressing the button **1** of the remote control. This function does not change the state of the anti-theft alarm system.
During the alarm, an alarm tone sounds and the turn indicators flash. The type of alarm sound can be programmed.

### Reason for triggering of the alarm

After the alarm function has been deactivated, the alarm system LED indicates the reason for any alarm activation which may have occurred for one minute:

- 1x flash: motion sensor; motorcycle was tilted forward/back
- 2 flashes: motion sensor; motorcycle was tilted to the side
- 3 flashes: ignition switched on with unauthorized key
- 4 flashes: DWA disconnected from motorcycle battery

### Note on alarm triggering

If an alarm was triggered after the last activation of the alarm function, then this is pointed out with a single signal tone after the ignition is switched on.

## Deactivation

– with anti-theft alarm system (DWA)[OE]

### Deactivate alarm function


- Press button **1** of remote control once **or** switch on ignition with an authorized key.

**NOTICE**

The alarm function can only be deactivated with the ignition key if the emergency ON/OFF switch is in the operating position.◀

**NOTICE**

If the alarm function is deactivated by means of the remote control and the ignition then not switched on, the alarm function is automatically reactivated after 30 seconds if "Activation after ignition off" has been programmed.◀

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

### Protection of the battery (anti-theft alarm system deactivated)

After approx. one hour in the activated state, the receiver for the remote control in the DWA switches off to protect the battery. The ignition must be switched on to deactivate the alarm function after this period.

## Programming

– with anti-theft alarm system (DWA) OE

### Programming options

The anti-theft alarm system can be adapted to individual needs in the following points:

– Confirmation alarm tone after activation/deactivation of the DWA in addition to the turn indicators lighting up
– Rising and falling or intermittent alarm tone
– Automatic activation of the alarm function when the ignition is switched off

### Factory settings

The anti-theft alarm system is delivered with the following factory settings:

– Confirmation alarm tone after activation/deactivation of the DWA: no
– Alarm tone: intermittent
– Automatic activation of the alarm function when the ignition is switched off: no

### Programming DWA


- Deactivate alarm function.
- Switch on ignition.
- Press button **1** three times.

» Acknowledgment tone sounds once.

- Switch off the ignition within ten seconds.
- Press button **2** three times.

» Acknowledgment tone sounds once.

- Switch on the ignition within ten seconds.

» Acknowledgment tone sounds three times.
» The programming function is active.

The actual programming is carried out in four steps, and Step 2 is not assigned any function. The number of flashing signals on the alarm system LED of the motorcycle shows the active programming step. Pressing the button **1** is confirmed by an alarm tone, and pressing the button **2** by an acknowledgment tone.

- **Step 1**: is a confirmation tone to sound after the DWA is activated/deactivated?

yes:

- Press button **1**.

no:

- Press button **2**.

• **Step 2**:
This step is not assigned any function.
• Press button **1** or button **2**.

• **Step 3**: Which alarm tone is to be selected?
rising and falling:
• Press button **1**.

intermittent:
• Press button **2**.

• **Step 4**: Is the alarm function to be automatically activated after the ignition is switched off?
yes:
• Press button **1**.

no:
• Press button **2**.

### When is the programming canceled?

There are two ways to cancel programming:
– By switching off the ignition before the last programming step.
– Automatically if more than 30 seconds pass between two programming steps.

The data are not saved when programming is canceled.

### Save programming

There are two ways to save programming:
– By switching off the ignition after the last programming step
– Automatically 30 seconds after the last programming step

The alarm system LED goes out and four acknowledgment tones are sounded.

## Logging on remote control

– with anti-theft alarm system (DWA)[OE]

### When is it necessary to log on a remote control?

Should you log on an additional remote control or want to replace a lost remote control, then you must always log on all remote controls with the DWA. You can log on a maximum of four remote controls.

### Logging on remote control


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

» Acknowledgment tone sounds once.

- Switch off the ignition within ten seconds.
- Press button **2** three times.

» Acknowledgment tone sounds once.

- Switch on the ignition within ten seconds.

» Acknowledgment tone sounds twice.

You can log on a maximum of remote controls for the DWA. The logon for each remote control is carried out in three steps.

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

» LED flashes for ten seconds.

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

» LED lights up.

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

» Alarm tone sounds once.
» LED goes out.
» Remote control is logged on.

- Repeat the three previous work steps for each additional remote control.

### Logon ended

The logon is ended in the following situations:

– 4 remote controls have been logged on.
– Ignition is switched off.
– No button was pressed for 30 seconds after the ignition was switched off.
– No button was pressed for 30 seconds after a remote control was logged on.

After the logon is completed, the LED flashes and the acknowledgment tone sounds three times.

## Synchronizing

– with anti-theft alarm system (DWA)[OE]

### When is it necessary to synchronize the remote control?

The remote control must be synchronized when the buttons of the remote control has been operated more than 256 times outside the range of the receiver.

In this case, the receiver on the motorcycle no longer reacts to the signals of the remote control.

### Synchronize remote control


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

» LED flashes for ten seconds.

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

» LED lights up.

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

» LED goes out.

– Remote control is synchronized.

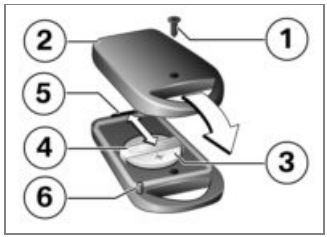
## Battery

– with anti-theft alarm system (DWA)[OE]

### When is a battery change required?

The batteries of the remote control must be replaced after approx. 2-3 years. A weak battery can be recognized from the fact that the LED does not light up at all or only briefly when a button is pressed.

### Replace battery




- Remove screw **1** and take off lower housing section **2**.
- Slide old battery **3** forward under bow **4**.

**ATTENTION**

**Unsuitable of improperly inserted batteries.**

Component damage

- Use specified battery (see "Technical Data" chapter).
- When inserting the battery, make sure that the polarity is correct.◀

- Install a new battery while making sure that positive terminal of battery is at top.
- Position lower housing section on nose **5** of front edge and close while watching two guide pins **6**.
- Install screw.

» The LED of the remote control lights up; i.e. the remote control must be activated.


- To activate the remote control within the range of the receiver, press the button **1** twice.

» LED **2** begins to flash and goes out after a few seconds.

» The remote-control is again ready to be used.

**Riding**

# Safety instructions

## Rider's equipment

The following clothing protects you while riding:
– Helmet
– Rider's suit
– Gloves
– Boots

This applies even to short journeys, and to every season of the year. Your authorized BMW Motorrad retailer will be happy to advise you and has the correct clothing for every purpose.

## Reduced clearance in inclined position

– with lowered suspension OE

Motorcycles with lowered running gear have a reduced clearance in inclined position and to the ground compared to motorcycles with standard running gear (see the chapter "Technical Data").

**WARNING**

**When cornering with lowered motorcycles, motorcycle parts can contact the road surface sooner than normal.**
Accident hazard
- Carefully test the clearance of the motorcycle in an inclined position and adjust your riding style accordingly.◀

Test the clearance of your motorcycle at an angle in safe situations. Remember to take the limited ground clearance of your motorcycle into account when driving over curbs and similar obstacles.

Lowering the motorcycle reduces the spring travel. A possible reduction in the accustomed driving comfort may result. Especially when riding with a passenger, the spring preload should be adjusted accordingly.

## Correct loading

**WARNING**

**Reduced riding stability caused by overloading and uneven loading.**
Accident hazard
- Do not exceed the gross weight limit and observe the loading information.◀
- Adjust spring preload and damping rate for the current gross motorcycle weight.

– with case OA
- Ensure that case volumes on left and right are equal.
- Make sure that weight is uniformly distributed between right and left.
- Pack heavy pieces of luggage to bottom and inside of cases.

- Observe the maximum payload and maximum speed as indicated on the label in the case (see also the chapter "Accessories").◁

– with Topcase OA
- Observe the maximum payload and maximum speed as indicated on the label in the topcase (see also the chapter "Accessories").◁

– with tank backpack OA
- Observe the maximum load capacity of the tank rucksack and the maximum speed at which the motorcycle may travel with a tank rucksack fitted.

|  Payload of tank rucksack |
|---|
| max 11 lbs (max 5 kg) |

|  Speed limit for driving with tank rucksack |
|---|
| max 81 mph (max 130 km/h)◁ |

– with rear bag OA
- Observe the maximum load capacity of the rear bag and the maximum speed at which the motorcycle may travel with a rear bag fitted.

|  Payload of rear bag |
|---|
| max 3 lbs (max 1.5 kg) |

|  Payload of rear bag |
|---|
| max 3 lbs (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.:
– Incorrect settings of spring-strut and shock absorber system
– Imbalanced load
– Loose clothing
– Insufficient tire inflation pressure
– Poor tire treads
– Installed luggage systems, such as cases, topcases and tank rucksacks.

## Maximum speed with studded or winter tyres

**⚠ DANGER**

**Maximum speed of the motorcycle is higher than the permissible maximum speed of the tyres.**
Accident hazard caused by tyre damage at excessively high speed.

- Observe the maximum permissible speed for the tyres.◀

With studded or winter tyres, the maximum permissible speed for the tyres must be observed.
Attach a label specifying the maximum permissible speed in the field of view of the instrument cluster.

## Risk of poisoning

Exhaust fumes contain carbon monoxide, which is colorless and odorless but highly toxic.

**WARNING**

**Harmful exhaust gas.**
Danger of suffocation
- Do not inhale exhaust fumes.
- Do not run the engine in closed rooms.◀

## Burn hazard

**CAUTION**

**Engine and exhaust system become very hot when the motorcycle is in use.**
Burn hazard
- After parking the vehicle, make sure that no persons or objects come 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 must be observed:
– Do not run the fuel tank dry
– Do not run the engine with the spark-plug cap removed
– Stop the engine immediately if it misfires
– Use unleaded fuel only
– Comply with all specified maintenance intervals.

**ATTENTION**

**Unburned fuel in the catalytic converter.**
Damage to the catalytic converter.
- Note the points listed for protection of the catalytic converter.◀

## Danger of overheating

**ATTENTION**

**Engine idling for a lengthy period while at a standstill.**
Overheating caused by insufficient cooling. In extreme cases, the motorcycle could catch fire.
- Do not allow the engine to idle unnecessarily.
- After starting, ride off immediately.◀

## Modifications

**ATTENTION**

**Modifications to the motorcycle (e.g. engine control unit, throttle valves, clutch).**
Damage to the affected parts, failure of safety-relevant functions. Damage caused by modifications invalidates the warranty.
- Do not make any modifications.◀

## Observe checklist

- Use the following checklist to check your motorcycle at regular intervals.

**Before every journey:**
- Function of the brake system
- Function of the lighting and signal system
- Check clutch function (➠ 111).
- Checking tire tread depth (➠ 112).
- Firm seating of cases and luggage

**At every third refuelling stop:**
– without Electronic Suspension Adjustment (ESA)[OE]
- Adjusting spring preload at rear wheel (➠ 52).
- Adjust damping on rear wheel (➠ 54).◁

– with Electronic Suspension Adjustment (ESA)[OE]
- Adjust the chassis (➠ 55).◁

- Checking engine oil level (➠ 105).
- Check front brake pad thickness (➠ 107).
- Checking brake pad thickness at rear (➠ 108).
- Checking front brake fluid level (➠ 109).
- Checking rear brake fluid level (➠ 110).
- Checking coolant level (➠ 111).
- Lubricating chain (➠ 113).
- Check chain sag (➠ 113).

## Starting

### Starting the engine

**ATTENTION**

**Sufficient transmission gearbox lubrication only when the engine is running.**
Transmission damage
- Do not allow the motorcycle to roll for longer periods or push it over longer distances with the engine switched off.◀

- Switch on ignition.

» Pre-Ride Check in progress (➠ 76)

» ABS self-diagnosis is performed (➠ 77).

– with Automatic Stability Control (ASC)[OE]
» ASC self-diagnosis in progress (➠ 77).◁
• Engage neutral, or pull back clutch lever if a gear is engaged.

**NOTICE**

You cannot start the motorcycle with the side stand extended and a gear engaged. The engine will switch itself off if it is started with the transmission in neutral and then a gear is engaged before retracting the side stand.◀

• For cold starts and at low ambient temperatures: pull the lever to disengage the clutch and twist the throttle grip slightly.


• Press starter button **1**.

**NOTICE**

The starting attempt is automatically interrupted if battery voltage is too low. Recharge the battery before you attempt to start the engine again, or use jumper cables and a donor battery to start. More detailed information can be found in the "Maintenance" chapter under "Jump-starting".◀

» Engine starts.
» If the engine fails to start, the troubleshooting chart in chapter "Technical Data" may provide assistance (➠ 142).

## Pre-Ride Check

When the ignition is switched on the instrument cluster performs a test routine including the analog display instruments as well as the warning and indicator lights - this is the "Pre-Ride-Check." Starting the engine before the test routine is completed will cancel the remainder of the routine.

### Phase 1

The needles on the tachometer and speedometer rotate to their end positions. Simultaneously all warning and indicator lights are activated sequentially.

### Phase 2

The universal warning lamp changes from yellow to red.

**Phase 3**

The needles on the tachometer and speedometer return to their initial positions. At the same time, the previously activated warning and indicator lights are now switched off in reverse sequence.

If one of the needles fails to move, or if one of the warning and indicator lamps fails to light up:

- Have the malfunction corrected as soon as possible at an authorized service facility, preferably an authorized BMW Motorrad Retailer.

## ABS self-diagnosis

The self-diagnosis routine is determining whether BMW Motorrad ABS is ready for operation. The self-diagnosis routine runs automatically when you switch on the ignition. To check the wheel speed sensors, the motorcycle must be driven a few yards.

**Phase 1**

Check on system components monitored by the diagnostic system while motorcycle is parked.

ABS indicator light flashes.

**Phase 2**

Check wheel sensors while starting off.

ABS indicator light flashes.

**ABS self-diagnosis completed**

The ABS indicator and warning light goes out.

- Check the display of all indicator and warning lights.

An ABS error is indicated following completion of the ABS self-diagnosis routine.

- It remains possible to continue riding. It must be noted that the ABS function is not available.
- Have the malfunction corrected as soon as possible at an authorized service facility, preferably an authorized BMW Motorrad Retailer.

## ASC self-diagnosis

– with Automatic Stability Control (ASC)[OE]

The self-diagnosis routine is determining whether the BMW Motorrad Integral ASC is ready for operation. The self-diagnosis routine runs automatically when you switch on the ignition.

**Phase 1**

» Check on system components monitored by diagnostic system while motorcycle is parked.

ASC indicator and warning light flashes slowly.

**Phase 2**

» Diagnostic system evaluates status of monitored system components while motorcycle is underway (at least 3.1 mph [5 km/h]).

ASC indicator and warning light flashes slowly.

**ASC self-diagnosis completed**

» The ASC indicator and warning light goes out.

If an ASC error is indicated following completion of the ASC self-diagnosis routine:

- It remains possible to continue riding. Please be aware that ASC functionality is no longer available.
- Have the malfunction corrected as soon as possible at an authorized service facility, preferably an authorized BMW Motorrad Retailer.

## Breaking in

### Engine

- While running in the motorcycle, vary the throttle opening and engine-speed range frequently; avoid driving for long periods at a constant speed.
- Choose curvy, slightly hilly sections of road if possible.
- Observe the engine run-in speeds.

|  Engine run-in speed |
|---|
| <5000 $min^{-1}$ |

- Have first run-in check conducted after 300 - 750 mls (500 - 1,200 km).

### Brake pads

New brake pads must be run in before they achieve their optimum friction force. This initial reduction in braking efficiency can be compensated for by exerting greater pressure on the brake levers.

**WARNING**

**New brake pads.**
Extension of the braking distance. Accident hazard.
- Brake early.◀

### Tires

New tires have a smooth surface. This must be roughened by riding in a restrained manner at various heel angles until the tires are run in. This running in proce-

dure is essential if the tires are to achieve maximum grip.

**WARNING**

**Loss of adhesion of new tires on wet roads and at extreme angles.**

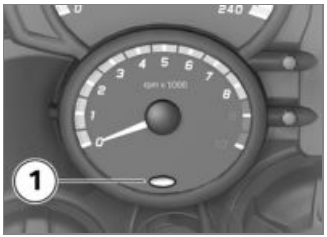
Accident hazard

- Always think well ahead and avoid extreme angles.◀

## Speed

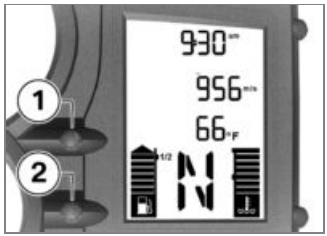
– with onboard computer[OE]

### Engine speed warning




The engine speed warning signals to the driver that the red engine speed range has been reached. This signal is shown in red by the flashing of the anti-theft alarm indicator light **1**.
The signal is maintained until the transmission is upshifted or the engine speed is reduced. It can be activated or deactivated by the driver.

### Activating engine speed warning




- Press and hold button **1** and button **2** simultaneously until display changes.

» FLASH (engine speed warning indicator) and ON or OFF are shown.

- Press button **1** until desired state is shown.

» ON: engine speed warning activated.

» OFF: engine speed warning deactivated.

- To save the setting made, press and hold button **1** and

button **2** simultaneously until the display changes.

## Off-road riding

### After driving offroad

BMW Motorrad recommends that the following be observed after driving offroad:

**Tire inflation pressure**

**WARNING**

**When riding off-road, reduced tyre pressure when riding on paved surfaces.**
Risk of accident due to poorer driving characteristics.
- Ensure proper tyre inflation pressure.◀

**Brakes**

**WARNING**

**Riding on unpaved or dirty roads.**
Delayed braking effect caused by dirty brake discs and brake pads.
- Brake early until the brakes are braked clean.◀

**ATTENTION**

**Riding on unpaved or dirty roads.**
Increased brake pad wear.
- Check the brake pad thickness more often and replace the brake pads sooner.◀

**Spring preload and damping**

**WARNING**

**Modified values for spring preload and spring strut damping when riding off-road.**
Poorer driving characteristics on paved surfaces.
- Before returning to on-road use, reset the correct spring preload and spring strut damping.◀

**Rims**

BMW Motorrad recommends checking the rims for possible damage after riding offroad.

**Air cleaner insert**

**ATTENTION**

**Dirty air filter element.**
Engine damage
- When driving in dusty terrain, check air filter insert for soiling at short intervals and clean or replace if necessary.◀

Use under very dusty conditions (deserts, savannas, etc.) requires the use of air filter elements specially developed for these kinds of applications.

# Brakes

## How do you achieve the shortest stopping distances?

The dynamic load distribution between the front and rear wheel changes during braking. The heavier you brake, the greater the weight transfer to the front wheel. Increases in the load on an individual wheel are accompanied by a rise in the effective braking force that the wheel can provide.

To achieve the shortest possible braking distance, the front brake must be applied quickly and with progressively greater levels of force. This procedure provides ideal exploitation of the extra weight transfer to the front wheel. The clutch should also be disengaged at the same time. With the frequently instructed "forced braking," in which the brake pressure is generated as quickly as possible and with great force, dynamic load distribution lags behind the progressive increases in deceleration rate and the braking force cannot be completely transferred to the road surface. The front wheel can lock up.

Locking up of the front wheel is prevented by BMW Motorrad ABS.

## Descending mountain passes

**⚠ WARNING**

**Braking only with the rear-wheel brake when descending mountain passes.**

Loss of braking action. Destruction of the brakes caused by overheating.

- Use both front and rear brakes, and make use of the engine's braking effect as well.◀

## Wet, soiled brakes

Moisture and dirt on the brake rotors and the brake pads result in a decrease in the braking action.

Delayed or poorer braking action must be expected in the following situations:

– When driving in the rain and through puddles.
– After washing the motorcycle.
– When driving on roads spread with salt.
– After working on the brakes due to oil or grease residues.
– When driving on soiled roads or offroad.

**⚠ WARNING**

**Moisture and dirt.**

Poorer braking action.

- Brake until brakes are dry or clean; clean if necessary.

• Brake early until the full braking action is available again.◀

## Parking your motorcycle

### Side stand

• Switch off engine.

**ATTENTION**

**Poor ground conditions in area of stand.**
Component damage caused by tipping over.
• Always check that the ground under the stand is level and firm.◀

**ATTENTION**

**Loading of the side stand with additional weight.**
Component damage cause by tipping over.
• Do not sit on the motorcycle when it is parked on the side stands.◀
• Fold out side stand and park motorcycle.
• If the slope of the road permits, turn the handlebars to the left.
• On a grade, the motorcycle should always face uphill; select 1st gear.

### Center stand

– with center stand OE

• Switch off engine.

**ATTENTION**

**Poor ground conditions in area of stand.**
Component damage caused by tipping over.
• Always check that the ground under the stand is level and firm.◀

**ATTENTION**

**Folding in of the main stand during strong movements.**
Component damage caused by tipping over.
• Do not sit on the motorcycle while it is resting on the center stand.◀
• Fold out center stand and jack up motorcycle.
• On a grade, the motorcycle should always face uphill; select 1st gear.

## Refueling

### Fuel specifications

For optimal fuel economy, the gasoline should be sulfur-free or very low in sulfur content.

**ATTENTION**

**Leaded fuel.**

Damage to the catalytic converter.

- Do not refuel with leaded gasoline or gasoline with metallic additives, e.g. manganese or iron.◀

**ATTENTION**

**Use of Ethanol E85 as fuel.**

Damage to the engine and fuel supply.

- Do not refuel with E85, i.e. fuel with an ethanol content of 85 %, or with Flex Fuel.◀
- Fuels with a maximum ethanol content of 10 %, meaning "E10," may be used for refueling. Ethanol should satisfy the quality standards for the US (ASTM 4806–xx) and Canada (CGSB-3.511–xx). “xx” - comply with the current standard in each case.

| Recommended fuel quality |
|---|
| Super unleaded (max. 10 % ethanol, E10)<br>89 AKI (95 ROZ/RON)<br>89 AKI |
| – with unleaded regular gasoline OE |
| Regular unleaded (minor restrictions with regard to power and fuel consumption) (max. 10 % ethanol, E10)<br>87 AKI (91 ROZ/RON)<br>87 AKI◁ |

## Refueling procedure

**WARNING**

**Fuel is highly flammable.**

Fire and explosion hazard.

- Do not smoke. Never bring a naked flame near the fuel tank.◀

**WARNING**

**Escaping of fuel due to expansion under exposure to heat with overfilled fuel tank.**

Accident hazard

- Do not overfill the fuel tank.◀

**ATTENTION**

**Fuel attacks plastic surfaces.**

Surfaces become unattractive or cloudy.

- Immediately clean plastic parts after contact with fuel.◀
- Make sure ground is level and firm and place motorcycle on side stand.

**NOTICE**

The available fuel tank volume can only be optimally used with the vehicle standing on the side stand.◀

- Open protective cap.
- Unlock cap of fuel tank with ignition key and fold up.


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

**NOTICE**

When refueling after running on fuel reserve, the resulting total fuel quantity must be greater than the fuel reserve, so that the new filling level is detected and the fuel warning light is switched off.◀

**NOTICE**

The "usable fuel quantity" specified in the technical data is the fuel quantity, which can be refueled if the fuel tank was completely emptied, i.e., if the engine dies off due to lack of fuel.◀

| Usable fuel quantity |
| --- |
| Approx. 4.2 gal (Approx. 16 l) |

| Reserve fuel quantity |
| --- |
| min 2.9 quarts (min 2.7 l) |

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

## Securing motorcycle for transport

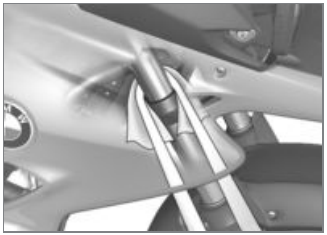
- Protect all components, along which straps are routed, against scratching. For example, use adhesive tape or soft cloths.

**ATTENTION**

**Motorcycle tips to the side when raising.**

Component damage cause by tipping over.

- Secure the motorcycle against tipping to the side, preferably with the assistance of a second person.◀
- Push motorcycle onto transport surface, and do not place on side stand or center stand.



**ATTENTION**

**Pinching of components.**

Component damage

- Do not pinch components, e.g. brake lines or wiring harnesses.◀
- Fasten straps at front on both sides on lower fork bridge and tension.

- Fasten straps at rear on both sides on rear frame and tension.
- Tension all straps evenly; the motorcycle should be pulled down against its springs with the suspension compressed as much as possible.

**Technology in detail**

# Brake system with BMW Motorrad ABS

## How does ABS work?

The maximum braking force that can be transferred to the road surface is partially dependent on the friction coefficient of the road surface. Gravel, ice, snow and wet roads offer a considerably poorer friction coefficient than a dry, clean asphalt surface. The poorer the friction coefficient of the road surface is, the longer the braking distance will be.
If the maximum transferable braking force is exceeded when the driver increases the brake pressure, the wheels begin to lock and driving stability is lost, and a fall can result. Before this situation occurs, ABS intervenes and adjusts the brake pressure to the maximum transferable braking force. This enables the wheels to continue to turn and maintains riding stability regardless of the road condition.

## What happens when rough roads are encountered?

Bumpy or rough roads can briefly lead to a loss of contact between the tires and the road surface, until the transferable braking force is reduced to zero. If braking is carried out in this situation, ABS must reduce the brake pressure to ensure driving stability when restoring contact to the road. At this point in time, the BMW Motorrad ABS must assume extremely low friction coefficients (gravel, ice, snow) so that the running wheels turn in every imaginable case and the driving stability is ensured. After detecting the actual conditions, the system adjusts the optimum brake pressure.

## Lifting off rear wheel

During extremely heavy and rapid decelerations, however, it is possible under certain circumstances that the BMW Motorrad Antilock Brake System cannot prevent the rear wheel from lifting off the ground. In these cases, the motorcycle can also flip end over end.

**WARNING**

**Lifting off of the rear wheel due to heavy braking.**

Accident hazard

- When braking heavily, bear in mind that the ABS control cannot always be relied on to prevent the rear wheel from lifting off the ground.◀

## What are the design characteristics of the BMW Motorrad ABS?

The BMW Motorrad ABS ensures driving stability on any surface within the limits of driving physics. The system is not optimized for special requirements resulting under extreme weather conditions offroad or on the racetrack.

## Special situations

To detect the tendency of the wheels to lock up, the speeds of the front and rear wheel are compared. If implausible values are detected over a longer period of time, the ABS function is deactivated for safety reasons and an ABS error is indicated. The condition for a fault code is the completed self-diagnosis.
In addition to problems on the BMW Motorrad ABS, unusual driving conditions can also lead to a fault message.

**Unusual driving conditions:**

- Driving on the rear wheel (wheelie) for a longer period.
- Rear wheel spinning in place with front brake pulled (burn out).
- Heating up on the main or auxiliary stand at idle or with gear engaged.
- Locked-up rear wheel for a longer period of time, e.g. when riding downhill offroad.

Should a fault code occur due to one of the driving conditions described above, the ABS function can be reactivated by switching the ignition off and then on again.

## How important is regular maintenance?

**⚠ WARNING**

**Failure to have maintenance performed on the brake system regularly.**
Accident hazard

- To ensure that the BMW Motorrad ABS is in a properly maintained condition, it is vital that the specified service intervals are kept to.◀

## Reserves for safety

But remember: 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.
Be careful in curves! 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.

## Engine management with BMW Motorrad ASC

– with Automatic Stability Control (ASC)[OE]

### How does ASC work?

The BMW Motorrad ASC compares the wheel speeds of the front and rear wheels. From the speed difference the slip, and with it the stability reserves on the rear wheel are determined. When a slip limit is exceeded, the engine torque is adapted by the engine management system.

### What are the design characteristics of the BMW Motorrad ASC?

The BMW Motorrad ASC is an assistance system for the rider and is designed for driving on public roads. Especially at the limits of physics, the rider has a considerable influence on the extent of the control that ASC can provide (shifting weight in curves, loose loads).
The system is not optimized for special requirements resulting under extreme weather conditions offroad or on the racetrack. The BMW Motorrad ASC can be deactivated for these cases.

**⚠ WARNING**

**Risky riding style.**
Accident hazard despite ASC.
- The rider is always responsible for adapting his/her driving style.
- Do not reduce the system's extra safety margin with careless riding or unnecessary risks.◀

### Special situations

As lean angles increase, acceleration potential is also progressively restricted by the laws of physics. This can result in delayed acceleration when coming out of very tight curves.

To detect spinning or slipping away of the rear wheel, the speeds of the front and rear wheel are compared. If implausible values are detected over a longer period of time, the ASC function is deactivated for safety reasons and an ASC fault is indicated. The condition for a fault code is the completed self-diagnosis.
In the following unusual driving conditions, the BMW Motorrad

ASC can be automatically deactivated.

**Unusual driving conditions:**

– Driving on the rear wheel (wheelie) for a longer period with ASC deactivated
– Rear wheel spinning in place with front brake engaged (burn out)
– Heating up on the main or auxiliary stand at idle or with gear engaged

The ASC is reactivated by switching the ignition on and off and then driving at a speed above 3 mph (5 km/h).

If the front wheel loses contact with the ground during extreme acceleration, the ASC reduces the engine torque until the front wheel touches the ground again. In this case, BMW Motorrad recommends turning back the throttle grip somewhat to achieve a stable driving state again as quickly as possible.

On a slippery surface, the throttle grip should never be suddenly turned back completely without pulling the clutch at the same time. The engine braking torque can cause the rear wheel to block, resulting in an unstable driving state. This case cannot be controlled by the BMW Motorrad ASC.

## Tire Pressure Control TPC/RDC

– with Tire Pressure Control (TPC/RDC)[OE]

### Operation

A sensor located in each tire monitors the air temperature and the inflation pressure inside the tire and transmits this information to the control unit.

The sensors are equipped with a centrifugal controller, which does not enable the transmission of the measured values until a speed of approx. 18.5 mph (30 km/h) is reached. Before initial reception of the tire inflation pressure, –– is shown in the display for each tire. The sensors continue to transmit the monitored data for approx. 15 minutes after the motorcycle comes to a stop.

### Temperature compensation

The tire inflation pressure is temperature dependent, i.e., it increases or decreases together with the tire temperature. The tire temperature is dependent on the ambient temperature and on the driving style and duration.

The tire inflation pressures are shown temperature-compensated in the multifunction display; they refer to a tire temperature of 68 °F (20 °C). No temperature compensation takes place in the inflation pressure testers at filling stations, meaning that the measured tire inflation pressure varies according to tire temperature. As a result, the pressure figures indicated by the gauges at filling stations will usually vary from those appearing in the multifunction display.

## Tire inflation pressure ranges

The TPC/RDC control unit distinguishes between three inflation pressure ranges matched to the motorcycle:

– Inflation pressure within the permissible tolerance
– Inflation pressure at the limits of the permissible tolerance
– Inflation pressure outside the permissible tolerance

## Adjusting inflation pressure

Compare the TPC/RDC value in the multifunction display with the value on the back cover of the Rider's Manual. The difference between the two values must be compensated with the air pressure tester at the filling station.

Example: According to the Rider's Manual, the tire inflation pressure is to be 36 psi (2.5 bar), however 33 psi (2.3 bar) is shown in the multifunction display. The tester at the filling station indicates 34.8 psi (2.4 bar). This value must be increased by 3 psi (0.2 bar) to 37.8 psi (2.6 bar) in order to produce the correct tire inflation pressure.

## Accessories

## General instructions

BMW Motorrad recommends the use of parts and accessories for your motorcycle that are approved by BMW for this purpose. Your authorized BMW Motorrad retailer will be happy to provide qualified advice on the selection of genuine BMW parts and accessories as well as other BMW-approved products.

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

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

Observe the information on the importance of wheel sizes for chassis control systems (➠ 115).

**⚠ CAUTION**

**Use of products from other manufacturers.**

Safety risk

- 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. Nor is this guarantee provided when the official approval of a specific country has been granted. 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. The motorcycle must not infringe on national road-motorcycle construction and use regulations of your country.

## Onboard power sockets

Information on using onboard power sockets:

**Automatic deactivation**

Onboard sockets are switched off automatically under the following conditions:

– if the battery's voltage falls below the level required to start the vehicle
– If the maximum loadability specified in the technical data is exceeded
– during starting.

**Operating electrical accessories**

Additional devices connected to onboard sockets can only be put into operation when the ignition is switched on. The accessory remains operational if the ignition is subsequently switched off. Onboard sockets are switched off approx. 15 minutes after switching off the ignition to reduce the strain on the onboard electrical system.

Additional devices with low power consumption are possibly not detected by the vehicle electronics. In these cases, onboard sockets are already switched off shortly after the ignition is switched off.

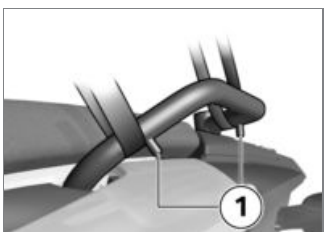
**Cable routing**

The cords from the power sockets to the devices must be routed in such a way that they:

– do not interfere with the driver's freedom of movement
– do not limit steering angles and handling characteristics
– cannot be caught or trapped.

## Luggage

### Lashing down luggage



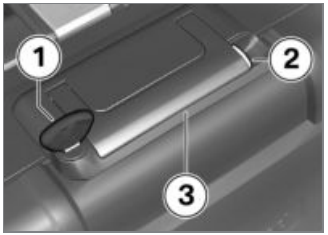

- Route luggage belts between motorcycle and along anti-slip locks **1**.


- Route luggage belt **2** as shown using example of a luggage roll.
- Check piece of luggage for secure hold.

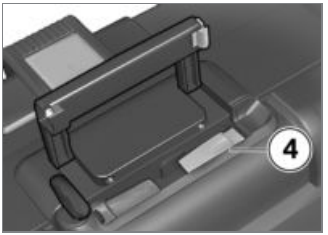
## Case

### Open case

– with case OA




- Turn key **1** in case lock perpendicular to direction of travel.
- Hold down yellow locking device **2** and fold out carrying handle **3**.



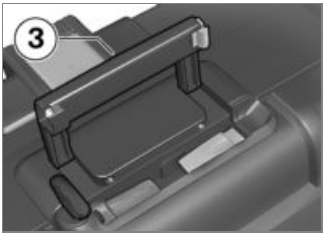

- Press yellow button **4** downward while opening case lid.

## Close case

– with case OA

- Turn key in case lock perpendicular to direction of travel.
- Close case lid.

» The lid clicks audibly into place.




**ATTENTION**

**Folding down the carrying handle when the case is locked.**

Damage to the locking tab.

- Before folding down the carrying handle, make sure that the slot of the case lock is perpendicular to the direction of travel.◀
- Fold carrying handle **3** down.
- Turn key in case lock in the direction of travel and remove.

## Adjust case volume

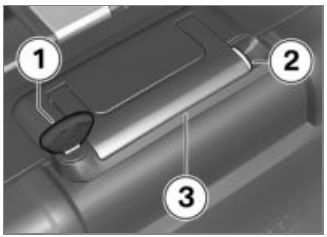
– with case[OA]

- Open and empty case.

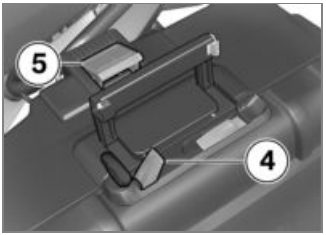

- Engage pivot lever **1** in upper end position to obtain smaller volume.
- Engage pivot lever **1** in lower end position to set larger volume.
- Close case.

## Remove case

– with case[OA]




- Turn key **1** in case lock perpendicular to direction of travel.
- Hold down yellow locking device **2** and fold out carrying handle **3**.




- Pull up red release lever **4**.

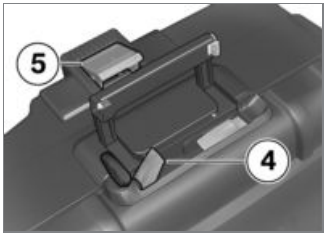
» Locking flap **5** pops up.

- Fold locking flap all the way open.
- Remove case from mount by its handle.

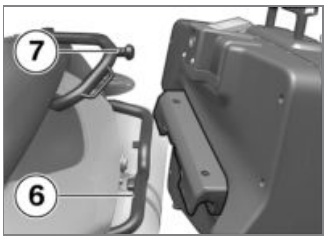
## Mounting case

– with case[OA]

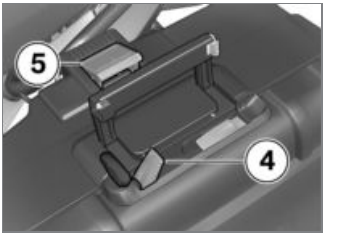
- Turn key in case lock perpendicular to direction of travel.




- Fold up locking flap **5** completely by pulling red release lever **4** upward if necessary.




- Insert case in case carrier **6**, then swing as far as possible onto mount **7**.




- Press locking flap **5** downward as far as possible and hold in place.
- Press red release lever **4** downward.

» The locking flap **5** clicks into place.

**ATTENTION**

**Folding down the carrying handle when the case is locked.**

Damage to the locking tab.

- Before folding down the carrying handle, make sure that the slot of the case lock is perpendicular to the direction of travel.◀
- Fold carrying handle down.
- Turn key in direction of travel and remove.

## Maximum payload and maximum speed

Observe maximum payload and top speed as indicated on label in case.

If you cannot find your combination of motorcycle and case on the label, contact your BMW Motorrad Retailer.

The following values apply to the combination described here:

| Maximum speed for riding with case |
|---|
| max 112 mph (max 180 km/h) |

| Payload per case |
| --- |
| max 22 lbs (max 10 kg) |

## Topcase

### Open the Topcase

– with Topcase[OA]


- Turn key **1** in Topcase lock into vertical position.
- Hold down yellow locking device **2** and fold out carrying handle **3**.


- Press yellow button **4** toward front while pressing Topcase lid upward.

### Closing the Topcase

– with Topcase[OA]

- Turn key in Topcase lock into vertical position.


- Close Topcase lid with firm pressure.

**ATTENTION**

**Folding down the carrying handle when the case is locked.**

Damage to the locking tab.

- Before folding down the carrying handle, make sure that the slot of the topcase lock is vertical.◀
- Fold carrying handle **3** down.

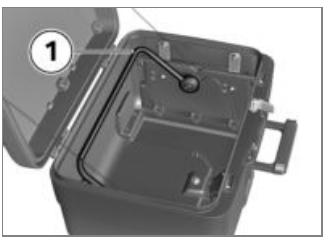
» Carrying handle audibly engages.

- Turn key in Topcase lock into horizontal position and remove.

## Adjusting Topcase volume

– with Topcase[OA]

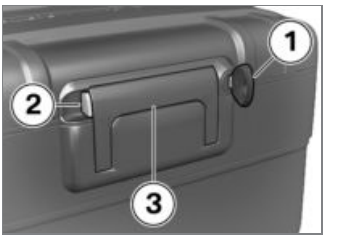
- Open and empty Topcase.




- Engage pivot lever **1** in front end position to set larger volume.
- Engage pivot lever **1** in rear end position to set smaller volume.
- Close Topcase.

## Removing topcase

– with Topcase[OA]




- Turn key **1** in topcase lock into vertical position.
- Hold down yellow locking device **2** and fold out carrying handle **3**.


- Pull red release lever **4** toward rear.

» Locking flap **5** pops up.

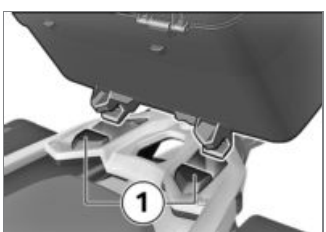
- Fold locking flap **5** all the way open.
- Remove topcase from mounting by its handle.

## Mounting the topcase

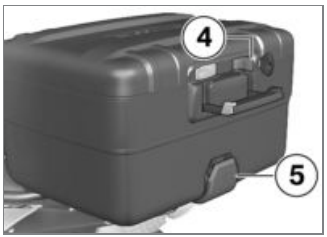
– with Topcase[OA]

- Turn key in Topcase lock into vertical position.


- Fold up locking flap **5** completely by pulling red release lever **4** toward rear if necessary.




- Hook topcase into front holders **1** of topcase retaining plate.
- Press topcase onto topcase retaining plate at rear.




- Fold locking flap **5** closed as far as possible and hold in place.
- Press red release lever **4** toward front.

» Locking flap clicks into place.

**ATTENTION**

**Folding down the carrying handle when the case is locked.**

Damage to the locking tab.

- Before folding down the carrying handle, make sure that the slot of the topcase lock is vertical.◀
- Fold carrying handle down.
- Turn key into horizontal position and remove.

## Maximum payload and maximum speed

Observe maximum payload and top speed as indicated on label in Topcase.

If you cannot find your combination of motorcycle and topcase on the label, contact your BMW Motorrad Retailer.

The following values apply to the combination described here:

| Maximum speed limit for driving with a Topcase |
|---|
| max 112 mph (max 180 km/h) |

|  Payload of Topcase |
| --- |
| max 11 lbs (max 5 kg) |

**Maintenance**

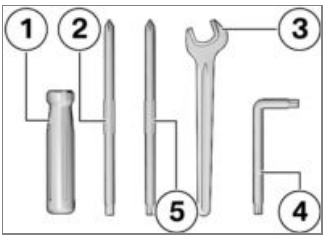
## General instructions

The "Maintenance" chapter describes work involving the checking and replacement of wear parts that can be performed with a minimum of effort.
If special tightening torques are to be taken into account for assembly, these are listed. An overview of all required tightening torques is contained in the chapter "Technical Data".
Information on additional maintenance and repair work is provided in the Repair Manual for your vehicle on DVD, which you can obtain from your authorized BMW Motorrad retailer.

Special tools and thorough specialized knowledge are required to carry out some of the work described here. If you are in doubt, consult an authorized workshop, preferably your authorized BMW Motorrad retailer.

## Onboard tool kit

### Standard tool kit

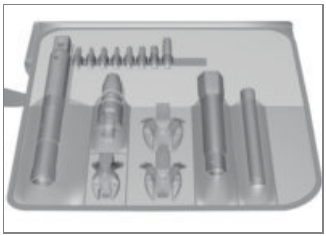



**1** Screwdriver handle
**2** Reversible screwdriver insert
with Phillips and straight blade
– Replacing front and rear turn indicator light sources (➠ 127).
– Replacing license-plate bulb (➠ 128).
– Removing battery (➠ 135).

**3** Open-ended wrench
Wrench size: 17 mm
– Adjusting mirror arm (➠ 52).
**4** Torx wrench T40
– Adjusting headlight range (➠ 57).
**5** Reversible screwdriver insert
Phillips PH1 and Torx T25
– Removing center fairing panel (➠ 129).

### Service tool kit

– with service toolkit[OA]



For more extensive service operations (such as wheel removal and installation), BMW Motorrad has put together a service tool kit matched to your motorcycle. You can purchase this tool kit from your authorized BMW Motorrad retailer.

## Engine oil

### Checking engine oil level

**ATTENTION**

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

Misinterpretation of the oil capacity

- Only check the oil level after a longer journey or when the engine is warm.◀
- Wipe area around oil filler location clean.
- Allow engine to idle until fan starts, then let it continue running for an additional minute.
- Switch off engine.
- Make sure ground is level and firm and hold motorcycle at operating temperature vertically.

– with center stand OE

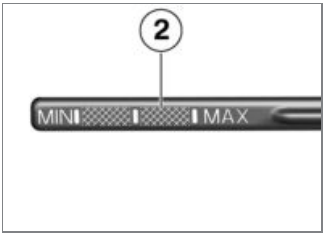
- Make sure ground is level and firm and place motorcycle at operating temperature on its center stand.◁


**ATTENTION**

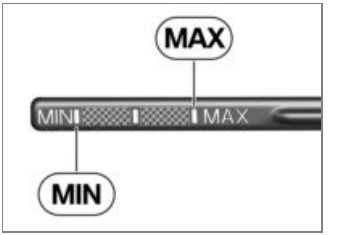
**Motorcycle tips to the side when raising.**

Component damage cause by tipping over.

- Secure the motorcycle against tipping to the side, preferably with the assistance of a second person.◀
- Remove oil dipstick **1**.




- Wipe off the graduated section **2** with a dry cloth
- Position oil dipstick on oil filler opening, but do not screw in.
- Remove oil dipstick and read fluid level.




| |
|---|
| Specified level of engine oil |
| between MIN and MAX marking |

| |
|---|
| Engine oil, quantity for topping up |
| Viscosity rating |
| max 0.4 quarts (max 0.4 l) (Difference between MIN and MAX) |

If the oil level is below MIN mark:
- Topping up engine oil (➠ 106).

If oil level is above MAX mark:
- Have fluid level corrected by an authorized workshop, preferably an authorized BMW Motorrad retailer.

- Install oil dipstick.

## Topping up engine oil

- Make sure ground is level and firm and park motorcycle.
- Clean the area adjacent to the oil filler opening.


- Remove oil dipstick **1**.

**ATTENTION**

**Too little or too much engine oil.**

Engine damage

- Always make sure that the oil level is correct.◀
- Add engine oil up to specified level.
- Checking engine oil level (➠ 105).
- Install oil dipstick.

## Brake system

### Checking brake operation

- Actuate the handbrake lever.

» Pressure point must be clearly perceptible.

- Actuate the footbrake lever.

» Pressure point must be clearly perceptible.

If no clear pressure points are perceptible:

**ATTENTION**

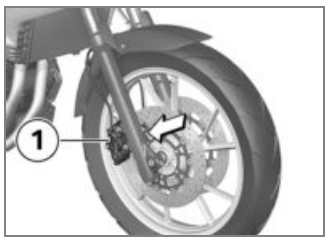
**Improper working on the brake system.**

Endangering of the operating safety of the brake system.

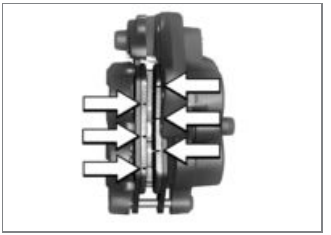
- Have all work on the brake system carried out by experts.◀
- Have the brakes checked at an authorized workshop, preferably an authorized BMW Motorrad retailer.

### Check front brake pad thickness

- Make sure ground is level and firm and park motorcycle.




- Visually inspect left and right brake pads to determine their thickness. Direction of view: between wheel and front wheel control to brake calipers **1**.



| Front brake-pad wear limit |
| --- |
| min 0.04 in (min 1.0 mm) (Only friction material without carrier plate. The wear markings, i.e. the grooves, must be clearly visible.) |

If the wear indicators are no longer clearly visible:

**WARNING**

**Dropping below the minimum pad thickness.**

Reduced braking action. Damage to the brake.

- In order to ensure the operating reliability of the brake system, make sure that the brake pads are not worn beyond their minimum thickness.◀
- Have the brake pads replaced at an authorized service facility, preferably an authorized BMW Motorrad dealer.

## Checking brake pad thickness at rear

- Make sure ground is level and firm and park motorcycle.


- Conduct a visual inspection of the brake pad thickness. Direction of view: from rear at brake caliper **1**.

| Rear brake-pad wear limit |
| --- |
| min 0.04 in (min 1.0 mm) (Only friction material without carrier plate.) |

If brake pads are worn:

**WARNING**

**Dropping below the minimum pad thickness.**

Reduced braking action. Damage to the brake.

- In order to ensure the operating reliability of the brake system, make sure that the brake pads are not worn beyond their minimum thickness.◀
- Have the brake pads replaced by a specialist service facility, preferably an authorized BMW Motorrad retailer.

## Checking front brake fluid level

- Make sure ground is level and firm and hold motorcycle vertically.

– with center stand OE

- Make sure ground is level and firm and place motorcycle on its center stand.◁
- Move handlebars into straight-ahead position.


**WARNING**

**Insufficient brake fluid in the brake-fluid reservoir.**
Considerably reduced braking performance caused by air in the brake system.

- Check brake fluid level regularly.◀
- Check brake fluid level in front brake-fluid reservoir **1**.

**NOTICE**

The brake fluid level in the brake-fluid reservoir drops due to brake pad wear.◀


| Front brake fluid level (visual check) |
|---|
| Brake fluid, DOT4 |
| The brake fluid level must not fall below the MIN mark. |

If brake fluid level falls below the approved level:

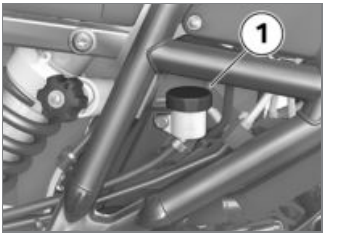
- Have the defect corrected as soon as possible by an authorized workshop, preferably an authorized BMW Motorrad retailer.

## Checking rear brake fluid level

- Make sure ground is level and firm and hold motorcycle vertically.

– with center stand OE

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




**WARNING**

**Insufficient brake fluid in the brake-fluid reservoir.**

Considerably reduced braking performance caused by air in the brake system.

- Check brake fluid level regularly.◀
- Read brake fluid level at rear brake-fluid reservoir **1**.

**NOTICE**

The brake fluid level in the brake-fluid reservoir drops due to brake pad wear.◀


| |
|---|
| Rear brake fluid level (visual check) |
| Brake fluid, DOT4 |
| The brake fluid level must not fall below the MIN mark. |

If brake fluid level falls below the approved level:

- Have the defect corrected as soon as possible by an authorized workshop, preferably an authorized BMW Motorrad retailer.

## Coolant

### Checking coolant level

- Make sure ground is level and firm and park motorcycle.


- Read off coolant level on expansion tank **1**. Viewing direction: from front through windshield and right-hand side panel.


| | |
|---|---|
| | Coolant, specified level |
| Antifreeze and anti-corrosion agents | |
| between MIN and MAX marks on the expansion tank | |

If coolant level drops below approved level:

- Add coolant.

### Topping up coolant


- Open cap **1** of expansion tank.
- Add coolant up to specified level using a suitable funnel.
- Close cap of expansion tank.

## Clutch

### Check clutch function

- Pull back the clutch lever.

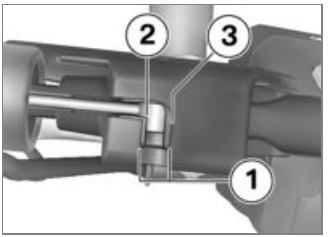
» Pressure point must be clearly perceptible.

If no clear pressure point can be felt:

- Have the clutch checked by an authorized workshop, preferably

an authorized BMW Motorrad retailer.

### Checking clutch play




- Actuate the clutch lever until resistance can be felt. Observe cut-out **1** in the handlebar fitting.

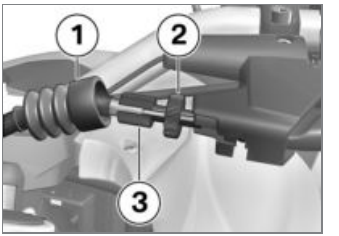
» The edge of cable mount **2** should move to the edge of handlebar fitting **3**.

| Clutch cable play |
| --- |
| 0.2 in (5 mm) (Handlebars in straight-ahead position) |

If clutch play is outside tolerance:

- Adjusting clutch play (➠ 112).

### Adjusting clutch play




- Slide rubber grommet **1** to the side.
- Loosen the nut **2**.
- To increase clutch play: turn adjusting screw **3** into handlebar fitting.
- To decrease clutch play: turn adjusting screw **3** out of handlebar fitting.
- Check clutch play (➠ 112).
- Tighten nut **2** while holding adjusting screw **3** to ensure that it does not move out of position.
- Pull rubber grommet **1** over the nuts.

## Wheel rims and tires

### Check wheel rims

- Make sure ground is level and firm and park motorcycle.
- Subject wheel rims to visual inspection for defects.
- Have damaged rims checked and, if necessary, replaced by a specialist service facility, preferably an authorized BMW Motorrad retailer.

### Checking tire tread depth

**WARNING**

**Riding with heavily worn tyres**

Risk of accident due to poorer rideability

- If necessary, replace the tyres before the legally specified minimum tread depth is reached.◀
- Make sure ground is level and firm and park motorcycle.
- Measure tire tread depth in main tread grooves with wear indicating marks.

**NOTICE**

Tread wear marks are integrated into the main grooves on every tire. If the tire tread has worn down to the level of the marks, the tire is completely worn. The locations of the marks are indicated on the edge of the tire, e.g. by the letters TI, TWI or by an arrow.◀

When the minimum tread depth is reached:

- Replace tires concerned.

# Chain

## Lubricating chain

**ATTENTION**

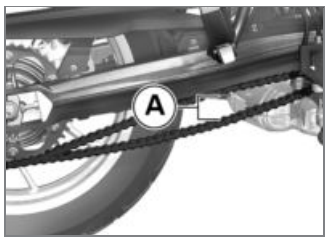
**Insufficient cleaning and lubrication of the drive chain.**

Increased wear.

- Clean and lubricate the drive chain regularly.◀
- Lubricate drive chain at least every 620 mls (1000 km). After driving though water or dust and dirt, carry out lubricate earlier accordingly.
- Switch off ignition and engage Neutral.
- Clean drive chain with suitable cleaning agent, dry and apply chain lubricant.
- Wipe off excess lubricant.

## Check chain sag

- Make sure ground is level and firm and park motorcycle.
- Turn the rear wheel until the position with the lowest chain sag is reached.




- Press chain upward and downward using a screwdriver and measure difference **A**.

| Chain sag |
|---|
| 1.2...1.6 in (30...40 mm) (Motorcycle unloaded on side stand) |
| – with lowered suspension[OE] |

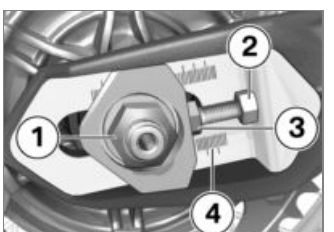
| Chain sag |
| --- |
| 0.8...1.2 in (20...30 mm) (Motorcycle unloaded on side stand)◁ |

If the measured value is outside the approved tolerance:

- Adjusting chain sag (➠ 114).

## Adjusting chain sag

- Make sure ground is level and firm and park motorcycle.




- Loosen quick-release axle nut **1**.
- Loosen lock nuts **2** on left and right.
- Adjust chain sag with adjusting screws **3** on left and right.
- Check chain sag (➠ 113).
- Ensure that the figures **4** indicating the adjustment settings are identical on left and right.
- Tighten locknuts **2** on left and right with appropriate torque.

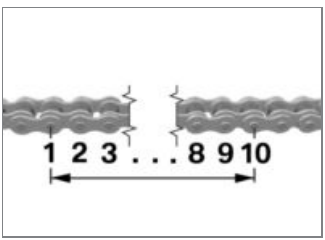
| Locknut of drive-chain tensioning screw |
| --- |
| 14 lb/ft (19 Nm) |

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

| Rear-wheel quick-release axle in swinging arm |
| --- |
| 74 lb/ft (100 Nm) |

## Check chain wear

- Make sure ground is level and firm and park motorcycle.
- Engage 1st gear.
- Rotate rear wheel toward front of vehicle until the chain is tensioned.
- Determine chain length below the rear wheel swinging arm with 9 rivets.




| Permissible chain length |
| --- |
| max 5.7 in (max 144.30 mm) (Measured over the **center** of 10 rivets, chain tensioned) |

If the chain has reached the maximum approved length:

- Contact an authorized service facility, preferably an authorized BMW Motorrad dealer.

## Wheels

### Tire recommendation

For every size of tire, BMW Motorrad has tested and approved certain makes as roadworthy. BMW Motorrad cannot evaluate the suitability of other tires, and can therefore take no responsibility for their driving safety.

BMW Motorrad recommends only using the tires tested and approved by BMW Motorrad.

The permissible maximum speed and load capacity figures must be complied with (see "Technical Data").

Observe the notes on maximum speed with studded or winter tyres (➠ 73).

Extensive information is available at your authorized BMW Motorrad retailer or on the Internet at www.bmw-motorrad.com.

### Affect of wheel sizes on chassis control systems

The wheel sizes play a major role in the ABS and ASC chassis control systems. Especially the diameter and width of the wheels are stored in the control unit as the basis for all necessary calculations. A change in these sizes due to conversion to others than the wheels installed as standard equipment can seriously affect the control comfort of these systems.

The sensor wheels required for wheel speed detection must also match the control systems installed and may not be replaced.

If you want to equip your motorcycle with different wheels, please speak to a specialist service facility, and preferably a BMW Motorrad retailer. In some cases the data stored in the control units can be adapted to the new wheel sizes.

### RDC sticker

– with Tire Pressure Control (TPC/RDC)[OE]


**ATTENTION**

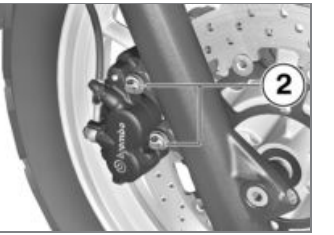
**Improper tire removal.**
Damage to the TPC/RDC sensors.
- Inform a specialist service facility or an authorized BMW Motorrad retailer on the fact that the wheel is equipped with a TPC/RDC sensor.◀

On motorcycles equipped with RDC, a corresponding sticker is located on the wheel rim in close proximity to the RDC sensor.

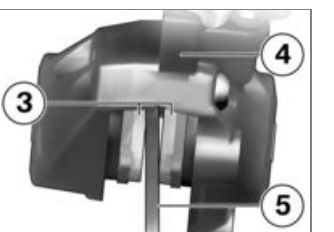
## Removing front wheel

- Make sure ground is level and firm and park motorcycle.


- Remove screw **1** and extract the ABS sensor from its socket.




- Remove screws **2** of right-hand brake caliper.




- Push brake pads **3** apart slightly by turning the brake caliper **4** back and forth against the brake rotor **5**.

- Mask off parts of wheel rim that could be scratched when removing brake caliper.

**ATTENTION**

**Pressing together the brake pads with the brake caliper removed.**

The brake caliper cannot be mounted over the brake disc.

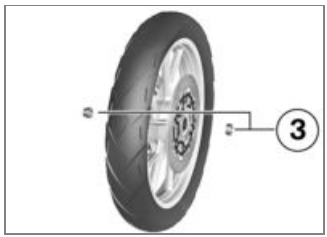
- Do not operate the brake lever with the brake caliper removed.◀
- Carefully pull brake calipers back to remove them from the brake rotor.

- Place motorcycle on a suitable auxiliary stand.

– with center stand OE

- Make sure ground is level and firm and place motorcycle on center stand.◁
- Make sure ground is level and firm and park motorcycle.
- Raise front of motorcycle until the front wheel can turn freely. To lift motorcycle, BMW Motorrad recommends using BMW Motorrad front wheel stand.
- Mounting front wheel stand (➠ 122).


- Remove right-hand axle clamping screw **1**.
- Remove axle **2** while supporting wheel.
- Do not remove grease on axle.
- Roll front wheel forward to remove.




- Remove distance bushings **3** on the left and right from the wheel hub.

## Installing front wheel

**WARNING**

**Use of a wheel which does not comply with series specifications.**

Malfunctions during control interventions by ABS and ASC/.

- Please see the information on the effect of wheel sizes on the

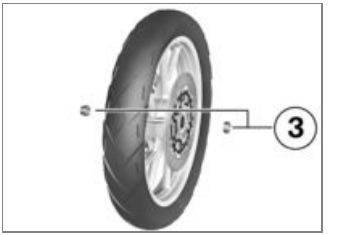
ABS and ASC chassis control systems at the beginning of this chapter.◀

**ATTENTION**

**Tightening of screwed connections with incorrect tightening torque.**

Damage or loosening of screwed connections.

- Always have the tightening torques checked by a specialized workshop, preferably an authorized BMW Motorrad retailer.◀




- Mount distance bushings **3** on the left and right on the wheel hub.

**ATTENTION**

**Front wheel installation opposite the running direction.**

Accident hazard

- Observe running direction arrows on tire or rim.◀
- Roll front wheel into front suspension while guiding brake disk between brake pads of left-hand brake caliper.


- Lift front wheel and install axle **2** with appropriate torque.

| | |
|---|---|
| Front quick-release axle in axle mount | |
| 22 lb/ft (30 Nm) | |

- Remove front wheel stand.

– without center stand OE

- Remove auxiliary stand.◁
- Place right-hand brake caliper on brake disk.


- Tighten screws **2** to the specified tightening torque.

| Brake caliper on telescopic forks |
|---|
| 28 lb/ft (38 Nm) |


- Insert ABS sensor in its socket and install screw **1**.
- Remove adhesive tape from wheel rim.
- Operate brakes several times until brake pads contact brake disk.
- Firmly compress spring forks several times.


- Tighten the right-hand axle clamping screw **1** with the specified torque.

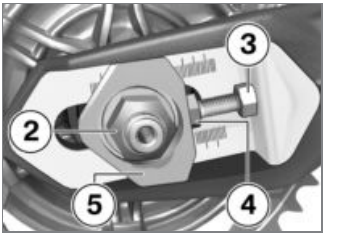
| Clamping screw (quick-release axle) in telescopic forks |
|---|
| 14 lb/ft (19 Nm) |

## Removing rear wheel

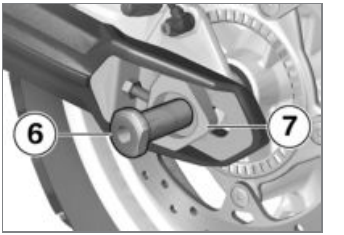
- Make sure ground is level and firm and place motorcycle on a suitable auxiliary stand.

– with center stand OE
- Make sure ground is level and firm and place motorcycle on center stand.◁

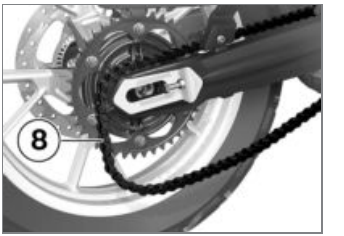

- Remove screw **1** and take speed sensor out of hole.




- Remove axle nut **2**.
- Loosen lock nuts **3** on left and right by turning counterclockwise.
- Loosen adjusting screws **4** on left and right by turning clockwise.
- Remove adjusting plate **5** and slide axle as far as possible toward inside.




- Remove quick-release axle **6** and take out adjusting plate **7**.




- Roll rear wheel as far forward as possible and remove chain **8** from chain sprocket.

- Roll rear wheel toward rear out of swinging arm.

**NOTICE**

The chain sprocket and the spacer sleeves on the left and right are loosely inserted in the wheel. Exercise care during the removal, in order that the parts are not damaged or are lost.◀

## Installing rear wheel

**WARNING**

**Use of a wheel which does not comply with series specifications.**

Malfunctions during control interventions by ABS and ASC/.

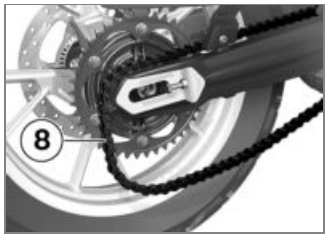
- Please see the information on the effect of wheel sizes on the ABS and ASC chassis control systems at the beginning of this chapter.◀

**ATTENTION**

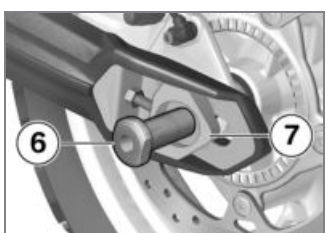
**Tightening of screwed connections with incorrect tightening torque.**

Damage or loosening of screwed connections.

- Always have the tightening torques checked by a specialized workshop, preferably an authorized BMW Motorrad retailer.◀
- Roll rear wheel into swing arm while guiding brake disk between brake pads.



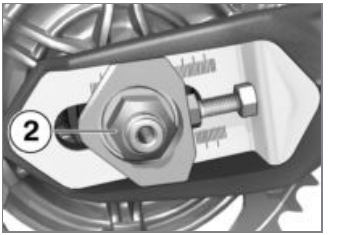

- Roll rear wheel as far forward as possible and lay chain **8** on chain sprocket.




- Mount left-hand adjusting plate **7** in swing arm and install

quick-release axle **6** in brake caliper and rear wheel.
- Make sure that axle fits in cutout of adjusting plate.


- Insert right-hand adjusting plate **5**.




- Install axle nut **2** but do not yet tighten it down.

– without center stand OE
- Remove auxiliary stand.◁


- Insert speed sensor in hole and install screw **1**.
- Adjusting chain sag (➠ 114).

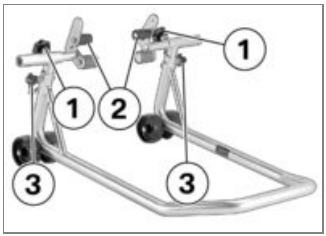
## Front wheel stand

### Mounting front wheel stand

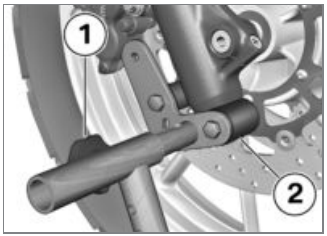
**ATTENTION**

**Use of the BMW Motorrad front wheel stand without an additional auxiliary stand.**
Component damage cause by tipping over.
- Place the motorcycle on an auxiliary stand before lifting the front wheel with the BMW Motorrad front-wheel stand.◀
- Place motorcycle on a suitable auxiliary stand.

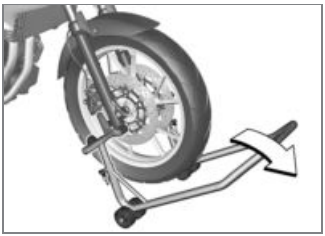
– with center stand OE
- Place motorcycle onto center stand.◁




- Use basic stand (83 30 0 402 241) with front wheel mount (83 30 0 402 242).
- Loosen mounting bolts **1**.
- Push the two mounts **2** outward, continuing until the front suspension fits between them. Adjust support pin to match front suspension.
- Use locating pins **3** to set front wheel stand to desired height.
- Center front wheel stand relative to front wheel and push it against front axle.




- Align two mounts **2** so that front suspension rests securely on them.
- Tighten securing screws **1**.



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

– with center stand[OE]

**ATTENTION**

**Lifting-off of the main stand if the vehicle is raised too high.**

Component damage cause by tipping over.

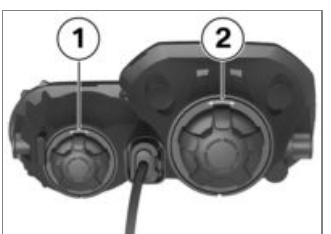
- When raising the motorcycle, make sure that the center stand remains on the ground.

- Adjust the height of the front wheel stand if necessary.◀
- Ensure that the motorcycle is standing securely.◁

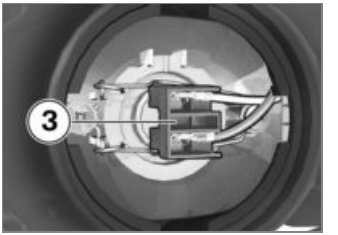
## Lamps

### Replacing low-beam and high-beam bulb

- Park motorcycle, ensuring that support surface is firm and level.
- Switch off ignition.




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



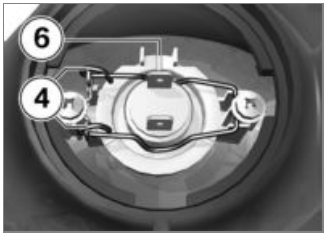

- Disconnect plug **3**.


- Remove spring strap **4** from detents and fold to side.
- Remove bulb **5**.
- Replace defective light source.

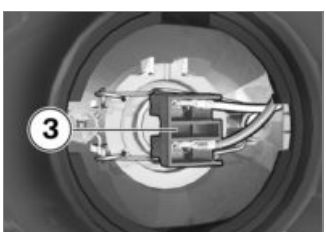
| Bulb for high-beam headlight |
|---|
| H7 / 12 V / 55 W |

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

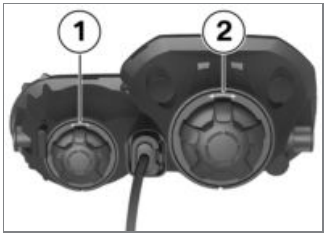
- To avoid leaving contamination deposits on the new bulb's glass surface, always hold it by its base.




- Insert the light source, taking care to ensure that the lug **6** is positioned correctly.
- Close the spring clamp **4** and lock it in place.



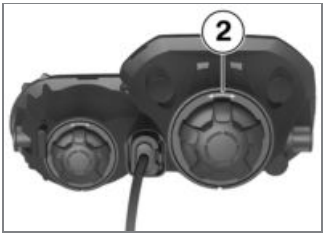

- Connect plug **3**.



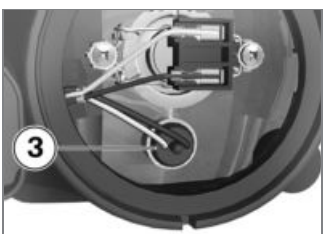

- Install cover **1** or cover **2**.

## Replacing parking light bulb

- Park motorcycle, ensuring that support surface is firm and level.
- Switch off ignition.




- Remove cover **2**.




- Remove bulb holder **3** from the headlight housing.

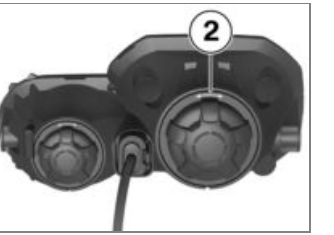
- Pull bulb out of socket.
- Replace defective bulb.

| Bulb for parking light |
| --- |
| W5W / 12 V / 5 W |

- To prevent contaminants from being deposited on the new bulb's glass surface, always use a clean, dry cloth to hold it.

- Press bulb into socket.


- Insert bulb holder **3** into the headlight housing.




- Install cover **2**.

## Replace the LED for brake and rear light

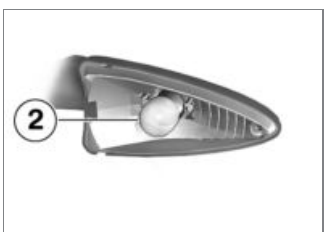
- The LED tail light can only be completely replaced. Please contact a specialist service facility for this purpose, preferably an authorized BMW Motorrad retailer.

## Replacing front and rear turn indicator light sources

- Park motorcycle, ensuring that support surface is firm and level.
- Switch off ignition.


- Remove the screw **1**.

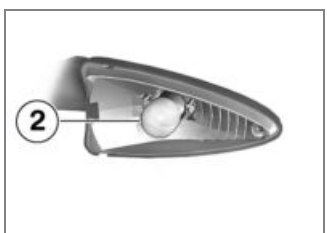
- Pull glass on screw connection side out of mirror housing.




- Remove the light source **2** from the light housing by pressing it in and turning it counterclockwise.
- Replace defective light source.

| Bulbs for flashing turn indicators, front |
|---|
| R10W / 12 V / 10 W |

- To protect glass on new bulb against contamination, always use a clean, dry cloth to hold it; do not touch with bare fingers.




- Install the light source **2** by pressing it into the light housing and turning it clockwise.

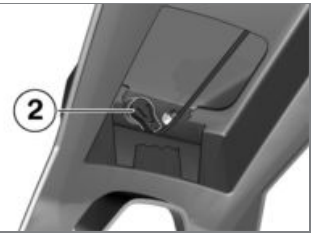
- Insert inside end of lens into light housing and close.


- Fit the screw **1**.

## Replacing license-plate bulb

- Park motorcycle, ensuring that support surface is firm and level.
- Switch off ignition.


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




- Pull the socket **2** out of the bulb holder.

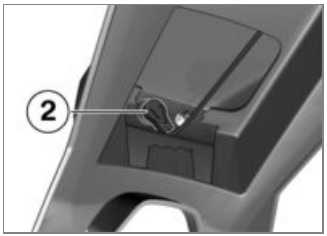
- Pull the light source out of the socket.

- Replace defective bulb.

| | |
|---|---|
| | Bulb for license-plate light |
| W5W / 12 V / 5 W | |

- To prevent contaminants from being deposited on the new bulb's glass surface, always use a clean, dry cloth to hold it.

- Insert the light source into the socket.




- Insert the socket **2** into the bulb holder.

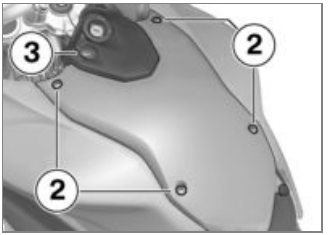

- Position mudguard cover and install screw **1**.

## Fairings and panels

### Removing center fairing panel

- Remove seat (➠ 57).


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

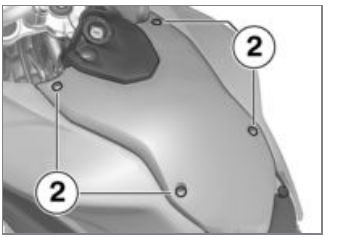



- Remove four screws **2**.
- Disconnect plug connection at onboard socket **3**.
- Remove center fairing panel.

### Installing center fairing panel

- Connect plug connection to onboard socket.


- Lay on center fairing panel. Make sure that three tabs **4** on left and right grip into side panels.



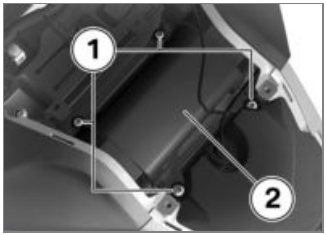

- Install four screws **2**.


- Install screws **1** on left and right.
- Installing seat (➠ 58).

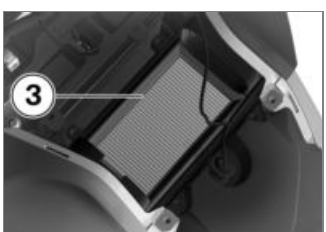
## Air filter

### Removing air filter

- Removing center fairing panel (➠ 129).

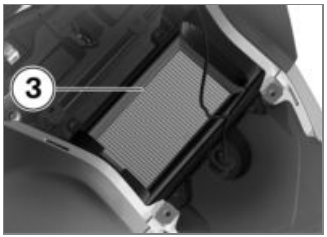



- Remove four screws **1**.
- Remove air filter cover **2**. For this purpose, slightly push the fairing side panels outwards.

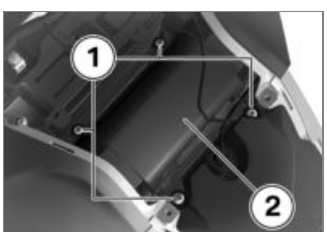



- Take out air filter **3**.

## Install air cleaner




- Install air filter **3**.




- Mount the air filter cover **2**. For this purpose, slightly push the fairing side panels outwards.
- Install screws **1** with washers.
- Installing center fairing panel (➠ 130).

## Jump-starting

**ATTENTION**

**Current too high when jump-starting the motorcycle**

Cable fire or damage to the vehicle electronics

- Do not jump-start the motorcycle using the power socket, only via the battery terminal.◀

**ATTENTION**

**Contact between crocodile clips of jump leads and motorcycle.**

Danger of short circuit

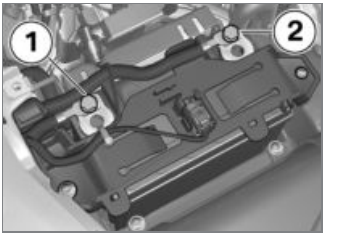
- Use jump leads fitted with fully insulated crocodile clips at both ends.◀

**ATTENTION**

**Jump-starting with a voltage higher than 12 V.**

Damage to the motorcycle's electronics.

- The battery of the donor vehicle must have a voltage of 12 V.◀
- Removing center fairing panel (➠ 129).
- Do not disconnect the battery from the onboard electrical system when jump-starting the engine.




- First connect positive terminal of the discharged battery to positive terminal on the donor battery with red jumper cable (positive terminal on this motorcycle: position **2**).
- Connect black jumper cable to negative terminal of donor battery and then to negative terminal of the discharged battery (negative terminal on this motorcycle: position **1**).

**NOTICE**

As an alternative to the negative battery terminal, the spring strut bolt can also be used.◀

- Allow engine on support motorcycle to run while jump-starting.
- Start engine of motorcycle with discharged battery in usual way; if engine refuses to start, wait a few minutes before repeating attempt to protect starter and supporting battery.
- Allow both engines to run for several minutes before disconnecting the jumper cables.
- Disconnect the jump leads from negative terminal first, then disconnect from positive terminal.

**NOTICE**

To start the engine, do not use start sprays or similar items.◀

- Installing center fairing panel (➠ 130).

## Battery

### Maintenance instructions

Correct battery maintenance combined with proper charging and storage procedures extends the battery's service life, and is also required for warranty claims. Compliance with the points below is important in order to maximize 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.

**ATTENTION**

**Discharging of the connected battery by the vehicle electronics (e.g. clock).**

Total discharge of battery leading to a rejection of warranty claims.

- During riding breaks of more than 4 weeks, connect a trickle-charger to the battery.◀

**NOTICE**

BMW Motorrad has developed a trickle-charger specially designed for compatibility with the electronics of your motorcycle. Using this charger, you can keep the battery charged during long periods when the motorcycle is not being used without having to disconnect the battery from the motorcycle's onboard systems. Additional information is available at your authorized BMW Motorrad retailer.◀

### Charging connected battery

- Remove devices connected to onboard power sockets.

**ATTENTION**

**Charging of the connected battery on the battery terminals.**

Damage to the motorcycle's electronics.

- Disconnect the battery before charging on the battery terminals.◀

**ATTENTION**

**Unsuitable chargers connected to the power socket.**

Damage to charger and chassis electronics.

- Use suitable BMW chargers. The correct charger is available through your authorized BMW Motorrad retailer.◀

**ATTENTION**

**Charge a fully discharged battery via the power socket or additional socket.**

Damage to the motorcycle's electronics.

- Always charge a fully discharged battery (battery voltage below 9 V; with the ignition switched on, the indicator lights and the multifunction display remain off) directly at the poles of the **disconnected** battery.◀
- Charge disconnected battery via onboard socket.

**NOTICE**

The motorcycle's onboard electronics know when the battery is fully charged. The onboard socket is switched off when this happens.◀

- Comply with operating instructions of charger.

**NOTICE**

If you are unable to charge the battery via the onboard socket, you may be using a charger that is not compatible with your motorcycle's electronics. In this case, charge the battery directly at the terminals of the disconnected battery.◀

## Charging disconnected battery

- Charge battery using a suitable charger.
- Comply with operating instructions of charger.
- After charging, remove terminal clamps of the charger from the battery terminals.

**NOTICE**

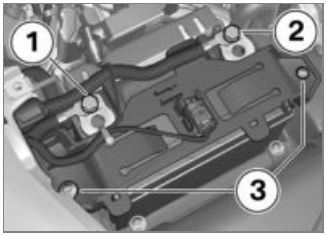
In the case of longer periods when the motorcycle is not being used, the battery must be recharged regularly. See the instructions for caring for your battery. Always fully recharge the battery before returning it to use.◀

## Removing battery

- Park motorcycle, ensuring that support surface is firm and level.

– with anti-theft alarm system (DWA)[OE]

- Switch off anti-theft alarm system if necessary.◁
- Switch off ignition.




**ATTENTION**

**Incorrect battery disconnection.**

Danger of short circuit

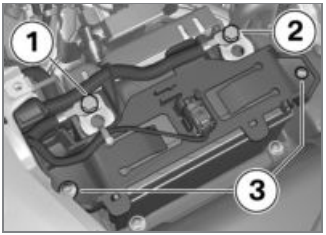
- Follow the disconnection sequence.◀
- Remove negative cable **1** first.
- Then remove positive cable **2**.
- Remove screws **3** on the left and right and take off battery carrier forward from the battery.
- Lift battery up and out, using tilting movements if it is difficult to move.

## Removing battery

- Remove seat (➠ 57).
- Removing center fairing panel (➠ 129).
- Park motorcycle, ensuring that support surface is firm and level.

– with anti-theft alarm system (DWA)[OE]

- Switch off anti-theft alarm system if necessary.◁
- Switch off ignition.




**ATTENTION**

**Incorrect battery disconnection.**

Danger of short circuit

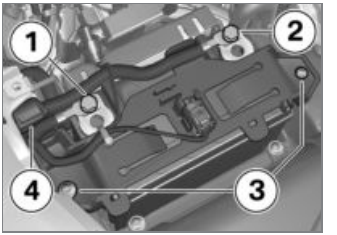
- Follow the disconnection sequence.◀
- Remove negative cable **1** first.
- Then remove positive cable **2**.
- Remove screws **3** on the left and right and take off battery carrier forward from the battery.
- Lift battery up and out, using tilting movements if it is difficult to move.

## Install battery

**NOTICE**

If the motorcycle was disconnected from the battery for a longer time, the current date must be entered in the instrument cluster to ensure the proper operation of the service display.
Consult a certified service facility, preferably an authorized BMW Motorrad retailer, for setting of the date.◀

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




- Lay on battery holder while ensuring correct routing of cables to position **4**.
- Install screws **3** on left and right.

**ATTENTION**

**Incorrect battery connection.**
Danger of short circuit
- Follow the installation sequence.◀

- Install positive cable **2**.
- Install negative cable **1**.

- Installing center fairing panel (➠ 130).
- Installing seat (➠ 58).
- Set the clock (➠ 41).

## Care

## Care products

BMW Motorrad recommends that you use cleaning and care products available at your authorized BMW Motorrad retailer. BMW Care Products have been materials tested, laboratory tested, and field tested and provide optimum care and protection for the materials used in your motorcycle.

**ATTENTION**

**Use of unsuitable cleaning and care agents.**

Damage to motorcycle parts.

- Do not use any solvents such as nitro thinners, cold cleaners, fuel or similar, and do not use cleaning agents that contain alcohol.◀

## Washing your motorcycle

BMW Motorrad recommends that you use BMW insect remover to soften and wash off insects and stubborn dirt on painted parts prior to washing the motorcycle.

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

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

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

**WARNING**

**Damp brake disks and brake pads after washing the motorcycle, after riding through water or in the rain.**

Poorer braking action.

- Brake early until the brake rotors and brake pads are dry.◀

**ATTENTION**

**Increased effect of salt caused by warm water.**

Corrosion

- Only use cold water to remove road salt.◀

**ATTENTION**

**Damage caused by high water pressure from high-pressure cleaners or steam-jet devices.**

Corrosion or short-circuit, damage to seals, to hydraulic brake system, to the electrical system and the seat.

- Exercise caution when using high-pressure or steam-jet devices.◀

## Cleaning sensitive motorcycle parts

### Plastics

**ATTENTION**

**Use of unsuitable cleaning agents.**

Damage to plastic surfaces.

- Do not use abrasive cleaners or cleaners containing alcohol or solvents.
- Do not use insect sponges or sponges with a hard surface.◀

**Fairings and Panels**

Clean body panels with water and BMW plastic cleaner.

**Windshields and lenses are manufactured of plastic**

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

**NOTICE**

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

### Chrome

Especially in the case of road salt, carefully clean chrome parts with plenty of water and BMW auto shampoo. 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.

**ATTENTION**

**Radiator fins bend easily.**

Damage to radiator fins.

- When cleaning, ensure that the cooler fins are not bent.◀

### Rubber

Treat rubber components with water or BMW rubber protection coating agent.

**ATTENTION**

**Use of silicone sprays for care of rubber seals.**

Damage to rubber seals.

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

## Paint care

Washing the vehicle on a regular basis will help prevent long-term damage from harmful substances, and is especially impor-

tant when your vehicle is used in areas with high levels of air pollution or where natural contaminants such as tree resin and pollen are present.
However, remove particularly aggressive materials immediately; otherwise changes in the paint or discoloration can occur. These include spilled fuel, oil, grease and brake fluid as well as bird droppings. BMW Car Polish and BMW Paint Cleaner are recommended for this procedure.
Contamination on the paint finish is particularly easy to see after the vehicle has been washed. Remove this type of soiling with cleaning naphtha or spirit on a clean cloth or cotton ball. BMW Motorrad recommends removing tar spots with BMW Tar Remover. Then add a protective wax coating to the paint at these locations.

## Store motorcycle

- Clean motorcycle.
- Completely fill the motorcycle's fuel tank.
- Removing battery (➠ 135).
- Spray the brake and clutch lever, and the center and side stand pivots with a suitable lubricant.
- Protect metal and chrome-plated parts with an acid-free grease (Vaseline).
- Park the motorcycle in a dry space in such a way that both wheels are under no load (preferably by using the front and rear-wheel stands available from BMW Motorrad).

## Protective wax coating

To protect the paint finish of your motorcycle, BMW Motorrad recommends the use of BMW Car Wax or agents that contain carnauba wax or synthetic waxes.
When water fails to form beads on the paint surface this indicates it is time to apply wax.

## Return motorcycle to use

- Remove the protective wax coating.
- Clean motorcycle.
- Install battery (➠ 136).
- Observe checklist (➠ 75).

**Technical Data**

## Troubleshooting chart

Engine does not start at all or is very difficult to start:

| Possible cause | Remedy |
|---|---|
| Emergency on/off switch (kill switch) | Adjust emergency on/off switch (kill switch) to normal operating position. |
| Side stand extended and gear engaged | Engage neutral or fold up the side stand. |
| Gear engaged and clutch not disengaged | Place transmission in neutral or disengage clutch. |
| No fuel in tank | Refueling procedure (➠ 83). |
| Battery drained | Charging connected battery (➠ 133). |

## Threaded fasteners

| Front wheel | Value | Valid |
|---|---|---|
| **Brake caliper on telescopic forks** | | |
| M10 x 40 | 28 lb/ft (38 Nm) | |
| **Clamping screw (quick-release axle) in telescopic forks** | | |
| M8 x 20 | 14 lb/ft (19 Nm) | |
| **Front quick-release axle in axle mount** | | |
| M16 x 1.5 | 22 lb/ft (30 Nm) | |

| Rear wheel | Value | Valid |
|---|---|---|
| **Locknut of drive-chain tensioning screw** | | |
| M8 | 14 lb/ft (19 Nm) | |
| **Rear-wheel quick-release axle in swinging arm** | | |
| M16 x 1.5 | 74 lb/ft (100 Nm) | |

| Mirror arm | Value | Valid |
|---|---|---|
| **Locknut (mirror) on clamping piece** | | |
| M10 x 1.5<br>Multi-Wax Spray | 15 lb/ft (20 Nm) | |
| **Clamping piece (mirror) on clamping block** | | |
| M10 | 22 lb/ft (30 Nm) | |

## Engine

| | |
|---|---|
| Engine number location | On crankcase at lower right |
| Engine design | Two-cylinder, four-stroke engine, DOHC control, 4 valves actuated by trailing valve levers, liquid cooling for cylinders and cylinder head, integrated coolant pump, 6-speed manual transmission and dry-sump lubrication |
| Displacement | 798 cc (798 $cm^3$) |
| Cylinder bore | 3.2 in (82 mm) |
| Piston stroke | 3 in (75.6 mm) |
| Compression ratio | 12:1 |
| Rated output | 75 hp (55 kW), at engine speed: 7000 $min^{-1}$ |
| – with unleaded regular gasoline[OE] | 71 hp (52 kW), at engine speed: 7000 $min^{-1}$ |
| Torque | 57 lb/ft (77 Nm), at engine speed: 5500 $min^{-1}$ |
| – with unleaded regular gasoline[OE] | 55 lb/ft (75 Nm), at engine speed: 4500 $min^{-1}$ |
| Maximum engine speed | max 9000 $min^{-1}$ |
| Idle speed | $1250^{+50}$ $min^{-1}$, With motorcycle stopped |

## Fuel

| | |
|---|---|
| Recommended fuel quality | Super unleaded (max. 10 % ethanol, E10)<br>89 AKI (95 ROZ/RON)<br>89 AKI |
| – with unleaded regular gasoline[OE] | Regular unleaded (minor restrictions with regard to power and fuel consumption) (max. 10 % ethanol, E10)<br>87 AKI (91 ROZ/RON)<br>87 AKI |
| Usable fuel quantity | Approx. 4.2 gal (Approx. 16 l) |
| Reserve fuel quantity | min 2.9 quarts (min 2.7 l) |
| Emission standard | EU 3 |

## Engine oil

| | |
|---|---|
| Engine oil, capacity | Approx. 3.1 quarts (Approx. 2.9 l), with filter replacement |
| Viscosity rating | |
| SAE 15W-50, API SJ/JASO MA2 | Additives (for instance, molybdenum-based substances) are prohibited, because they would attack the coatings on engine components, BMW Motorrad recommends BMW Motorrad ADVANTEC Pro Oil |
| Oil additives | BMW Motorrad does not recommend the use of oil additives, as these can adversely affect the operation of the clutch. Ask your BMW Motorrad retailer for engine oils suitable for your motorcycle. |

**BMW recommends** ADVANTEC ORIGINAL BMW ENGINE OIL

## Clutch

| | |
|---|---|
| Clutch design | Multi-disk oil-bath clutch |

## Transmission

| | |
|---|---|
| Transmission design | Claw-shifted 6-speed manual transmission integrated in engine housing |
| Transmission gear ratios | 1.943 (35/68 teeth), Primary gear 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 aluminum swinging arm |
| Number of teeth of rear-wheel drive (Pinion/ sprocket) | 17/42 |

## Suspension

| | |
|---|---|
| **Front wheel** | |
| Type of front suspension | Telescopic forks |
| Spring travel, front | 6.7 in (170 mm), On wheel |
| – with lowered suspension[OE] | 5.5 in (140 mm), On wheel |
| **Rear wheel** | |
| Type of rear suspension | Two-arm cast aluminum swinging arm |
| Type of rear suspension | Directly articulated central spring strut with steplessly adjustable rebound-stage damping |
| Spring travel at rear wheel | 6.7 in (170 mm), On wheel |
| – with lowered suspension[OE] | 5.3 in (135 mm), On 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 |
| Front brake-disk thickness | min 0.18 in (min 4.5 mm), Wear limit |
| **Rear wheel** | |
| Type of rear brake | Hydraulically operated disk brake with 1-piston floating caliper and fixed brake disk |
| Brake-pad material, rear | Organic |
| Rear brake-disk thickness | min 0.18 in (min 4.5 mm), Wear limit |

## Wheels and tires

| | |
|---|---|
| Recommended tire combinations | An overview of the current tire approvals is available from your authorized BMW Motorrad retailer or on the Internet at bmw-motorrad.com. |
| Speed category of front/rear tires | H, minimum requirement: 130 mph (210 km/h) |
| **Front wheel** | |
| Front wheel design | Cast aluminum, MT H2 |
| Front-wheel rim size | 2.50" x 19" |
| Front tire designation | 110/80 - 19 |
| Load index for front tire | At least 42 |
| Permissible front-wheel imbalance | max 0.2 oz (max 5 g) |
| **Rear wheel** | |
| Rear wheel design | Cast aluminum, MT H2 |
| Rear-wheel rim size | 3.50" x 17" |
| Rear tire designation | 140 / 80 - 17 |
| Load index for rear tire | At least 66 |
| Permissible rear-wheel imbalance | max 1.6 oz (max 45 g) |

| **Tire inflation pressure** | |
|---|---|
| Tire pressure, front | 31.9 psi (2.2 bar), One-up, with cold tires<br>31.9 psi (2.2 bar), Driver with passenger and/or load, with cold tire |
| Tire pressure, rear | 36.3 psi (2.5 bar), One-up, with cold tires<br>42.1 psi (2.9 bar), Driver with passenger and/or load, with cold tire |

## Electrical system

| | |
|---|---|
| Electrical rating of onboard sockets | 5 A |
| Fuses | All electrical circuits are electronically protected. If an electronic fuse trips and de-energizes a circuit, the circuit is active as soon as the ignition is switched on after the fault has been rectified. |
| **Battery** | |
| Battery design | AGM (Absorptive Glass Mat) battery. |
| Battery voltage | 12 V |
| Battery capacity | 12 Ah |
| **Spark plugs** | |
| Spark plugs, manufacturer and designation | NGK DCPR 8 E |
| Electrode gap of spark plug | 0.04 in (0.9 mm) |

| Bulbs | |
|---|---|
| Bulb for high-beam headlight | H7 / 12 V / 55 W |
| Bulbs for low-beam headlight | H7 / 12 V / 55 W |
| Bulb for parking light | W5W / 12 V / 5 W |
| Bulb for taillight/brake light | LED |
| Maximum number of defective LEDS in the tail-lamp | 6, Brake / taillight |
| Bulb for license-plate light | W5W / 12 V / 5 W |
| Bulbs for flashing turn indicators, front | R10W / 12 V / 10 W |
| Bulbs for flashing turn indicators, rear | R10W / 12 V / 10 W |

## Frame

| | |
|---|---|
| Frame design | Lattice-tube frame |
| Location of type plate | Top front steering head |
| Location of the vehicle identification number | Frame at front right on steering head |

## Dimensions

| | |
|---|---|
| Motorcycle length | 89.8 in (2280 mm), Over front wheel to license-plate carrier |
| Motorcycle height | 52.9 in (1343 mm), across mirrors, without driver, at DIN unladen weight |
| – with lowered suspension OE | 51.5 in (1308 mm), across mirrors, without driver, at DIN unladen weight |
| Motorcycle width | 34.6 in (880 mm), with mirrors |
| Rider's seat height | 32.3 in (820 mm), without rider at unladen weight |
| – with comfort seat OE | 32.9 in (835 mm), without rider at unladen weight |
| – with low seat OE | 31.1 in (790 mm), without rider at unladen weight |
| – with low seat OE<br>– with lowered suspension OE | 30.1 in (765 mm), without rider at unladen weight |
| Rider's inside-leg arc, heel to heel | 71.3 in (1810 mm), without rider at unladen weight |
| – with comfort seat OE | 72.4 in (1840 mm), without rider at unladen weight |
| – with low seat OE | 69.3 in (1760 mm), without rider at unladen weight |
| – with low seat OE<br>– with lowered suspension OE | 67.3 in (1710 mm), without rider at unladen weight |

## Weights

| | |
|---|---|
| Unladen weight | 461 lbs (209 kg), DIN unladen weight, ready for road, 90 % full tank of gas, without OE |
| Permissible gross weight | 961 lbs (436 kg) |
| – with lowered suspension[OE] | 769 lbs (349 kg) |
| Maximum payload | 500 lbs (227 kg) |
| – with lowered suspension[OE] | 309 lbs (140 kg) |

## Performance data

| | |
|---|---|
| Start-off capacity on uphill grades (with permissible total weight) | 20 % |
| Top speed | 119 mph (192 km/h) |
| – with unleaded regular gasoline[OE] | 117 mph (189 km/h) |

**Service**

## Reporting safety defects

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying BMW of North America, LLC.

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your retailer, or BMW of North America, LLC.

To contact NHTSA, you may call the Vehicle Safety Hotline toll-free at 1-888-327-4236 (teletypewriter TTY for the deaf: 1-800-424-9153); go to the website http://www.safercar.gov; or write to: Administrator, NHTSA, 400 Seventh Street, SW., Washington, DC 20590. You can also obtain other information about motor vehicle safety from http://www.safercar.gov.

## BMW Motorrad Service

With its worldwide dealer network, BMW Motorrad can attend to you and your motorcycle in over 100 countries around the globe. Authorized BMW Motorrad retailers have the technical information and expertise needed to conduct reliable service and repairs covering every aspect of your BMW.
You can find the nearest authorized BMW Motorrad retailer by visiting our Internet site at "www.bmw-motorrad.com".

**WARNING**

**Improperly performed maintenance and repair work.**
Accident hazard due to subsequent damage.
- BMW Motorrad recommends having corresponding work on your motorcycle carried out by a specialized workshop, preferably by an authorized BMW Motorrad retailer.◀

To ensure that your BMW consistently remains in optimal condition BMW Motorrad urges you to observe the recommended service intervals.
Have all maintenance and repair work confirmed in the "Service" chapter in this manual. For generous treatment of claims submitted after the warranty period has expired (goodwill), evidence of regular maintenance is essential.

You can obtain information on the contents of the BMW Services from your BMW Motorrad retailer.

## BMW Motorrad Mobility Services

The BMW Motorrad Mobility Services furnish you and your new BMW motorcycle with extra security by offering a wide array of assistance services in the event of a breakdown (BMW Roadside Assistance, breakdown assistance, vehicle recovery and retrieval, etc.).
Contact your authorized BMW Motorrad retailer for additional information on available mobility-maintenance services.

## Maintenance procedures

### BMW Pre-Delivery Check

The BMW pre-delivery check is carried out by your authorized BMW Motorrad retailer before it turns over the vehicle to you.

## BMW Running-in Check

The BMW running-in check must be carried out between 300 mls and 750 mls (500 km and 1200 km).

## BMW Service

BMW Service is carried out once a year. The scope of the services performed may be dependent on the motorcycle owner and the mileage driven. Your BMW Motorrad retailer confirms that the service has been performed and enters the date for the next service.
For riders who drive long distances annually, it may be necessary to come in for service before the entered date. In this case a corresponding maximum odometer reading will also be entered in the confirmation of service. If this odometer reading is reached before the next service date, service must be performed sooner.

The service display in the multifunction display reminds you of the next service date approx. one month or 620 miles (1,000 km) before the entered values.

More information on the topic of service is available at:
**bmw-motorrad.com/service**

The required scope of maintenance work for your motorcycle can be found in the following maintenance plan:

| | **500 -1200 km**<br>300 - 750 mls | **10 000 km**<br>6 000 mls | **20 000 km**<br>12 000 mls | **30 000 km**<br>18 000 mls | **40 000 km**<br>24 000 mls | **50 000 km**<br>30 000 mls | **60 000 km**<br>36 000 mls | **70 000 km**<br>42 000 mls | **80 000 km**<br>48 000 mls | **90 000 km**<br>54 000 mls | **100 000 km**<br>60 000 mls | **12 months** | **24 months** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ① | X | | | | | | | | | | | | |
| ② | | | | | | | | | | | | X | |
| ③ | | X | X | X | X | X | X | X | X | X | X | X[a] | |
| ④ | | | X | | X | | X | | X | | X | | |
| ⑤ | | | | | X | | | | X | | | | |
| ⑥ | | | X | | X | | X | | X | | X | | |
| ⑦ | | X | X | X | X | X | X | X | X | X | X | X[b] | |
| ⑧ | | | | | | | | | | | | X[c] | X[c] |
| | | | | | | | | | | | | | |
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## Maintenance schedule

**1** BMW running-in check
**2** Standard BMW Service (➠ 164)
**3** Engine oil change with filter
**4** Check valve clearance
**5** Replace all spark plugs
**6** Replacing air cleaner insert
**7** Check or replace the air filter element
**8** Change the brake fluid in the entire system

a annually or every 6000 miles (whichever comes first)
b annually or every 6000 miles (whichever comes first)
c when used off-road, annually or every 6000 miles (whichever comes first)

## Standard BMW Service

The standard BMW Service includes the following maintenance work:

- Performing the brief test using the BMW Motorrad diagnosis system.
- Checking the coolant level.
- Checking/adjusting clutch play.
- Checking accelerator Bowden cable for ease of movement, chafing and kinks, and play
- Checking the front/rear brake pads and brake discs for wear.
- Checking the front/rear brake fluid level.
- Visual inspection of brake lines, brake hoses and connections.
- Checking the tyre pressure and tread depth.
- Checking and lubricating the chain drive.
- Checking the side stands for ease of movement.
- Checking the center stand for ease of movement (when a center stand is fitted as optional equipment).
- Checking the steering head bearings.
- Checking the lighting and signal system.
- Checking that the engine starting suppression works.
- Final inspection and checking for road safety.
- Setting the service date and remaining distance to service.
- Checking the battery state of charge.
- Recording the BMW Service in the on-board literature.

## Confirmation of maintenance work

**BMW Pre-Delivery Check**

Conducted

on_____

Stamp, Signature

**BMW Running-in Check**

Conducted

on_____

Odometer reading_____

Next service
at the latest

on_____
or, if reached sooner,

Odometer reading_____

Stamp, Signature

**BMW Service**
Conducted

on_____

Odometer reading_____

Next service
at the latest

on_____
or, if reached sooner,

Odometer reading_____

Stamp, Signature

**BMW Service**
Conducted

on_____

Odometer reading_____

Next service
at the latest

on_____
or, if reached sooner,

Odometer reading_____

Stamp, Signature

**BMW Service**
Conducted

on_____

Odometer reading_____

Next service
at the latest

on_____
or, if reached sooner,

Odometer reading_____

Stamp, Signature

**BMW Service**
Conducted

on_____

Odometer reading_____

Next service
at the latest

on_____
or, if reached sooner,

Odometer reading_____

Stamp, Signature

**BMW Service**
Conducted

on_____

Odometer reading_____

Next service
at the latest

on_____
or, if reached sooner,

Odometer reading_____

Stamp, Signature

**BMW Service**
Conducted

on_____

Odometer reading_____

Next service
at the latest

on_____
or, if reached sooner,

Odometer reading_____

Stamp, Signature

**BMW Service**
Conducted

on_____

Odometer reading_____

Next service
at the latest

on_____
or, if reached sooner,

Odometer reading_____

Stamp, Signature

**BMW Service**
Conducted

on_____

Odometer reading_____

Next service
at the latest

on_____
or, if reached sooner,

Odometer reading_____

Stamp, Signature

**BMW Service**
Conducted

on_____

Odometer reading_____

Next service
at the latest

on_____
or, if reached sooner,

Odometer reading_____

Stamp, Signature

**BMW Service**
Conducted

on_____

Odometer reading_____

Next service
at the latest

on_____
or, if reached sooner,

Odometer reading_____

Stamp, Signature

**BMW Service**
Conducted

on_____

Odometer reading_____

Next service
at the latest

on_____
or, if reached sooner,

Odometer reading_____

Stamp, Signature

**BMW Service**
Conducted

on_____

Odometer reading_____

Next service
at the latest

on_____
or, if reached sooner,

Odometer reading_____

Stamp, Signature

## Confirmation of service

The table is intended as proof of maintenance and repair work, the installed optional accessories and any special campaign (recall) work carried out.

| Work carried out | Odometer reading | Date |
|---|---|---|
| | | |
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| | | |

| Work carried out | Odometer reading | Date |
|---|---|---|
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**Appendix**

## FCC Approval

### Ring aerial in the ignition switch

To verify the authorization of the ignition key, the electronic immobilizer exchanges information with the ignition key via the ring aerial.

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) this device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. ◀

## Approbation de la FCC

### Antenne annulaire présente dans le commutateur d'allumage

Pour vérifier l'autorisation de la clé de contact, le système d'immobilisation électronique échange des informations avec la clé de contact via l'antenne annulaire.
Le présent dispositif est conforme à la partie 15 des règles de la FCC. Son utilisation est soumise aux deux conditions suivantes :

(1) Le dispositif ne doit pas produire d'interférences nuisibles, et
(2) le dispositif doit pouvoir accepter toutes les interférences extérieures, y compris celles qui pourraient provoquer une activation inopportune.

Toute modification qui n'aurait pas été approuvée expressément par l'organisme responsable de l'homologation peut annuler l'autorisation accordée à l'utilisateur pour utiliser le dispositif. ◀

## Certification Tire Pressure Control (TPC)

| | |
|---|---|
| FCC ID: MRXBC54MA4<br>IC: 2546A-BC54MA4 | FCC ID: MRXBC5A4<br>IC: 2546A-BC5A4 |

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

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

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

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

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

The descriptions and illustrations in this manual may vary from your own motorcycle's actual equipment, depending upon its equipment level and accessories as well as your specific national version. No claims stemming from these differences can be recognized.
Dimensions, weights, fuel consumption and performance data are quoted to the customary tolerances.
The right to modify designs, equipment and accessories is reserved.
Errors and omissions excepted.



Original Rider's Manual, printed in Germany.

Important data for refueling:

| **Fuel** | |
|---|---|
| Recommended fuel quality | Super unleaded (max. 10 % ethanol, E10)<br>89 AKI (95 ROZ/RON)<br>89 AKI |
| – with unleaded regular gasoline[OE] | Regular unleaded (minor restrictions with regard to power and fuel consumption) (max. 10 % ethanol, E10)<br>87 AKI (91 ROZ/RON)<br>87 AKI |
| Usable fuel quantity | Approx. 4.2 gal (Approx. 16 l) |
| Reserve fuel quantity | min 2.9 quarts (min 2.7 l) |
| **Tire inflation pressure** | |
| Tire pressure, front | 31.9 psi (2.2 bar), One-up, with cold tires<br>31.9 psi (2.2 bar), Driver with passenger and/or load, with cold tire |
| Tire pressure, rear | 36.3 psi (2.5 bar), One-up, with cold tires<br>42.1 psi (2.9 bar), Driver with passenger and/or load, with cold tire |

You'll find additional information on all aspects of your motorcycle at:
bmw-motorrad.com

**BMW recommends** ADVANTEC ORIGINAL BMW ENGINE OIL

Order No.: 01 41 8 559 337
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