



BMW Motorrad

bmw-motorrad.com



The Ultimate
Riding Machine

Rider's Manual (US Model)

F 800 R

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 motorcycle's reliability and safety, as well as its value.

Documentation confirming performance of scheduled maintenance is a precondition for generous handling of out-of-warranty claims and goodwill warranty treatment.

Should you want to sell your BMW one day, please also remember to turn over the Ride's Manual to the new owner. It is an important part of your motorcycle.

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 40 8 388 337



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General instructions

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Overview

Chapter 2 of this Rider's Manual will provide you with an initial overview of your motorcycle. All maintenance and repair work carried out on your motorcycle will be documented in Chapter 13. 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.

National-

National-market version.

market
version

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.
TPC	Tire Pressure Control (TPC).

ESA Electronic Suspension Adjustment.

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 motorcycle comes with equipment not described here, you can find the descriptions in a separate manual.

Technical Data

All dimensions, weights and performance data contained in 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 outstanding levels of safety and quality furnished by every BMW motorcycle are the result of ongoing advanced development focusing on continuous improvement in design and engineering as well as equipment and accessories. Because of this, your motorcycle may differ from the information supplied in the Rider's Manual. In addition, BMW Motorrad cannot guarantee the total absence of errors. We hope you will appreciate that no

claims can be entertained on the basis of the data, illustrations or descriptions in this manual.

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General view, left side

- 1** Payload table (on steering head at left)
- 2** Seat lock (➡ 54)
- 3** Oil fill location and oil dipstick (➡ 96)

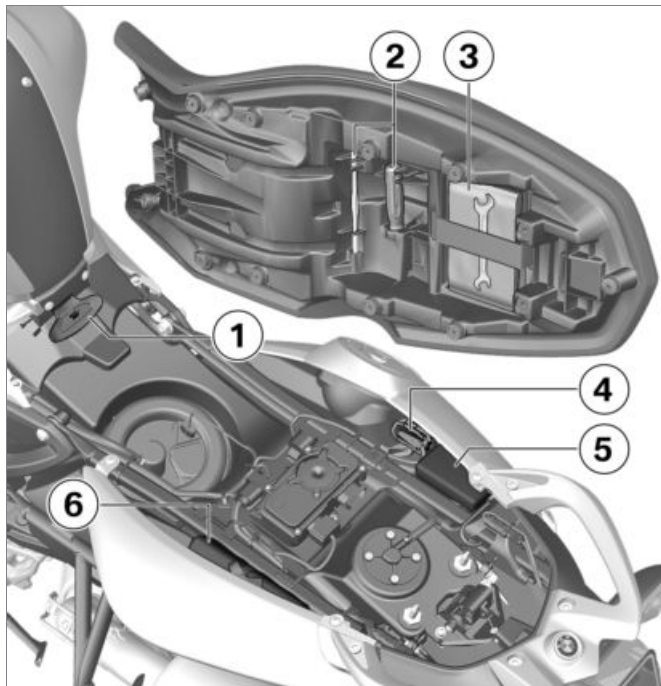


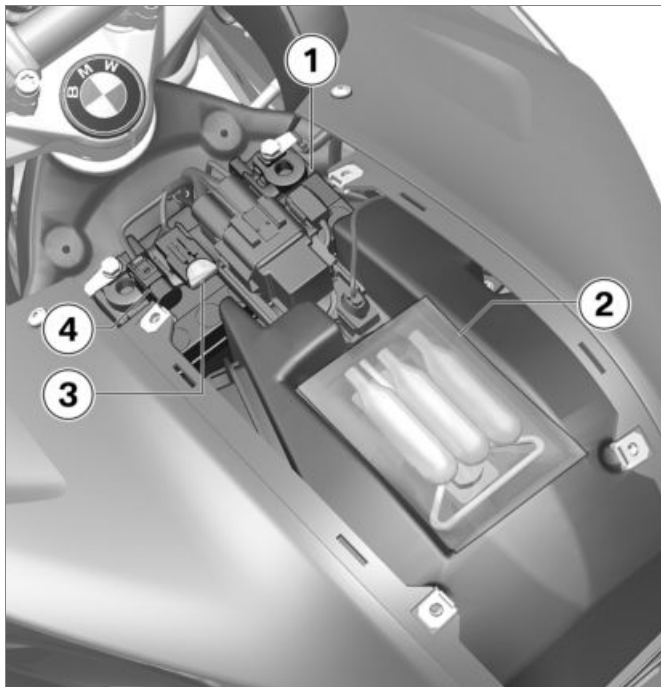
General view, right side

- 1 Fuel filler opening (▮▮▮ 84)
- 2 Brake-fluid reservoir, rear
(▮▮▮ 102)
- 3 Brake-fluid reservoir, front
(▮▮▮ 101)
- 4 Vehicle identification number, type plate (on steering head)
- 5 Coolant level indicator (behind side panel) (▮▮▮ 104)
- 6 – with power socket^{OE}
Power socket (▮▮▮ 132)
- 7 – without Electronic Suspension Adjustment (ESA)^{OE}
Adjusting spring preload at rear wheel (▮▮▮ 70).
- 8 – without Electronic Suspension Adjustment (ESA)^{OE}
Adjusting damping on rear wheel (▮▮▮ 71).

Underneath seat

- 1 Tools for adjusting spring preload (➡ 70)
- 2 Tool kit (➡ 94)
- 3 Rider's Manual (US Model)
- 4 Diagnostic connector (➡ 130)
- 5 Storage
 - with first-aid kit^{OA}
 - Storing first-aid kit
- 6 Storage
 - with service tool set^{OA}
 - Storing service tool kit (➡ 94)



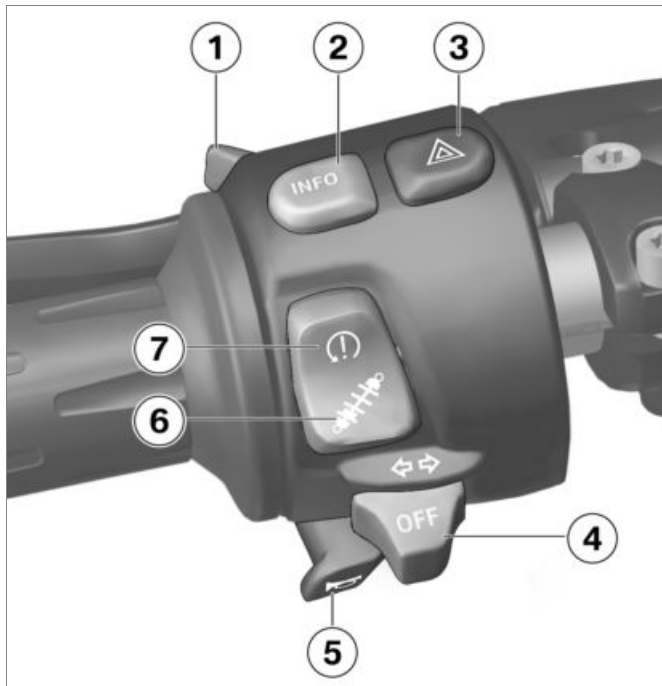


Underneath the center fairing panel

- 1** Battery (➡ 125)
- 2** Storage
– with tire repair kit^{OA}
Storage space for tire repair set
- 3** Fuse (➡ 129).
- 4** Connector for optional accessories

Multifunction switch, left

- 1 High-beam headlight and headlight flasher (➡ 44)
- 2 INFO button
Selecting display readings (➡ 46).
– with onboard computer^{OE}
Resetting average data (➡ 47).
- 3 Hazard warning lights system (➡ 45)
- 4 Turn indicators (➡ 45)
- 5 Horn
- 6 – with Electronic Suspension Adjustment (ESA)^{OE}
Viewing current setting (➡ 51).
- 7 – with Automatic Stability Control (ASC)^{OE}
Switching the ASC function off (➡ 50).



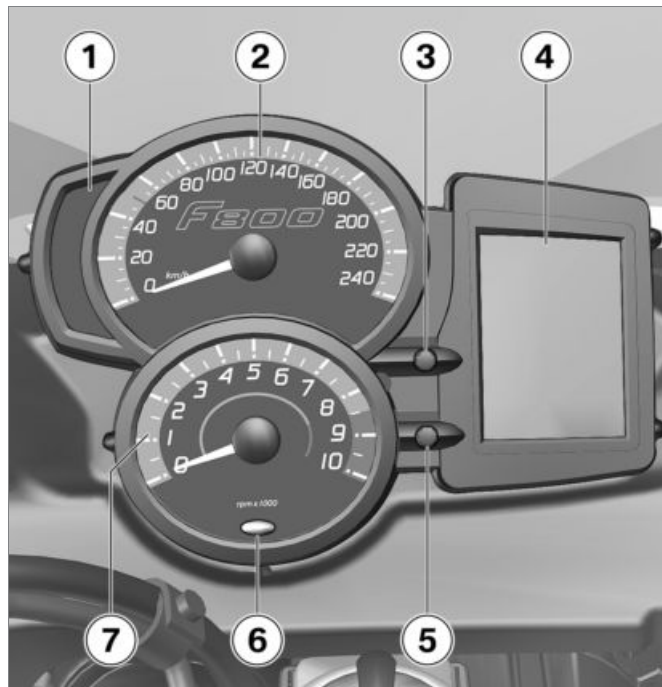


Multifunction switch, right

- 1** – with heated grips^{OE}
Operating heated grips (➡ 53).
- 2** MODE button
Setting riding mode (➡ 52).
- 3** Starter (➡ 77)
- 4** Emergency on/off switch (kill switch) (➡ 44)

Instrument panel

- 1 Indicator and warning lights (►► 22)
- 2 Speedometer
- 3 Button
Set clock (►► 48).
– with onboard computer^{OE}
Operating stopwatch (►► 49).
- 4 Multifunction display
- without optional equipment^{OE} (standard) (►► 23)
- with optional equipment^{OE} (►► 24)
- 5 Button
Selecting display readings (►► 46).
Resetting the trip odometer (►► 47).



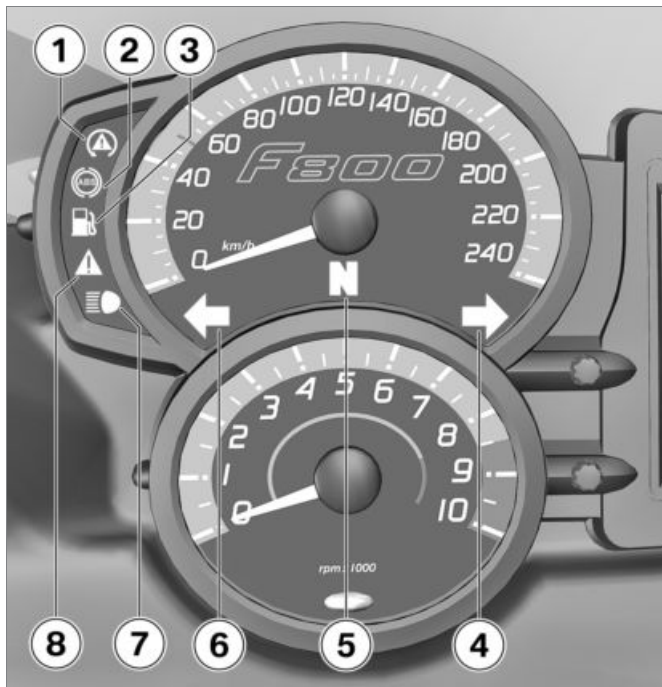
- 6** Photo sensor (brightness control)
– with onboard computer^{OE}
Activating the engine speed warner (▣▶ 81).
– with anti-theft alarm system (DWA)^{OE}
DWA LED
General information on DWA (▣▶ 58)
- 7** Tachometer

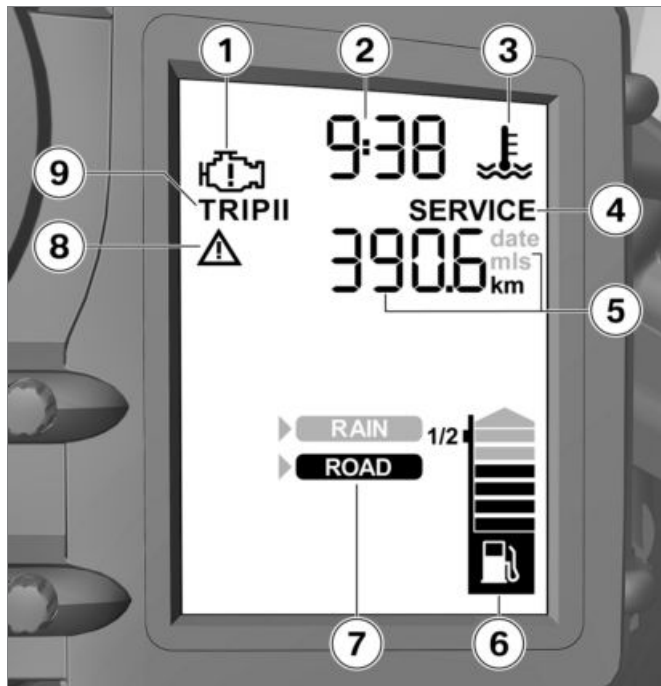
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Indicator and warning lights

- 1 – with Automatic Stability Control (ASC)^{OE}
Switching the ASC function off (→ 50).
- 2 ABS
- 3 Fuel reserve (→ 38)
Fuel gage (→ 29)
- 4 Turn indicator, right
- 5 Neutral position (idling)
- 6 Turn indicator, left
- 7 High-beam headlamp
- 8 General warning light (→ 25)





Multifunction display

- without heated grips^{OE}
- without onboard computer^{OE}
- without riding modes Pro^{OE}
- without Electronic Suspension Adjustment (ESA)^{OE}

- 1 Warning light for electronic engine management (➡ 30)
- 2 Clock (➡ 48)
- 3 Coolant-temperature warning indicator (➡ 29)
- 4 Service display (➡ 37)
- 5 Indication range for values Odometer (➡ 46)
Trip odometer (➡ 47)
- 6 Fuel gage (➡ 38)
- 7 Riding modes (➡ 52)
- 8 Warning symbol (➡ 25)
- 9 Trip odometer (➡ 47)

Multifunction display

- with heated grips^{OE}
- with onboard computer^{OE}
- with riding modes Pro^{OE}
- with Electronic Suspension Adjustment (ESA)^{OE}

- 1 Set heating stage of the heated grips (➡ 53)
- 2 Stopwatch (➡ 48)
- 3 Displays for OE
ESA (➡ 51)
Engine speed warner (➡ 81)
- 4 Onboard computer display (➡ 46)
Symbols (➡ 25)
- 5 Riding modes (➡ 52)
- 6 Gear indicator, "N" indicates 'neutral'



Onboard computer display

– with onboard computer^{OE}

 Mileage covered since reaching the fuel reserve
( 38)

 Average fuel consumption

 Average speed

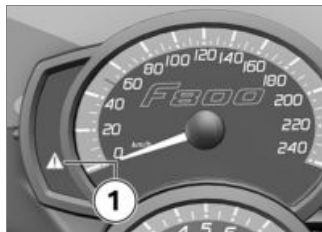
 Current fuel consumption

 Ambient temperature
( 32)

 Coolant temperature

Warning lights Displays

Warnings are displayed with appropriate warning lights.



Warnings for which no separate warning lamp is available are indicated by the 'universal' warning lamp **1** in conjunction with a warning notice or a warning symbol in the multifunction display. The universal warning light lights up in either yellow or red depending on the urgency of the warning.



Adjacent to the numerical data display **2** a warning triangle **3** may also appear. These warnings appear in alternation with the odometers ( 46).

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

You will find an overview of the potential warnings on the following pages.

Overview of warning indicators

Indicator and warning lights	Warning symbols in the display panel	Meaning
 lights up yellow	 + "EWS" is indicated	Electronic immobilizer is active (➡ 29)
 lights up		Fuel down to reserve (➡ 29)
 lights up red	 flashes	Coolant temperature too high (➡ 29)
 lights up yellow	 appears on the display	Engine in emergency-operation mode (➡ 30)
 lights up red	 The engine symbol is displayed	Engine warning (➡ 30)
 lights up yellow	 + "LAMP" is indicated	Bulb defective (➡ 31)
	"x . x ° F" flashes	Outside temperature warning (➡ 31)
 flashes		ABS self-diagnosis not completed (➡ 32)

Indicator and warning lights

Warning symbols in the display panel

Meaning

	lights up		ABS error (▬▬▬➔ 33)
	flashes rapidly		ASC intervention (▬▬▬➔ 33)
	flashes slowly		ASC self-diagnosis not completed (▬▬▬➔ 33)
	lights up		ASC switched off (▬▬▬➔ 33)
	lights up		ASC error (▬▬▬➔ 33)
	lights up yellow	 + "DWA" is indicated	DWA battery drained (▬▬▬➔ 34)
	lights up yellow	 + "x . x" flashes	Tire inflation pressure is at limit of approved range (▬▬▬➔ 34)
	flashes red	 + "x . x" flashes	Tire inflation pressure is outside approved range (▬▬▬➔ 34)

Indicator and warning lights	Warning symbols in the display panel	Meaning
 lights up yellow	 + "--" or "-- --" is displayed	Sensor defective or system error (➡ 35)
 lights up yellow	 + "RdC" is displayed	Battery of tire-inflation pressure sensor weak (➡ 36)
	 + "--" or "-- --" is displayed	Transmission error (➡ 36)

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 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.



Fuel reserve

Approx. 3.2 quarts (Approx. 3 l)

- Refueling procedure (► 84).

Coolant temperature too high



General warning light shows red.



The 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 (► 104).

If coolant level is too low:

- Topping up coolant (► 104).

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.
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorized BMW Motorrad retailer, if the coolant temperature is frequently too high.

Engine in emergency-operation mode



General warning light shows yellow.



Engine symbol appears on the display.



WARNING

Unusual handling when engine is in emergency operating mode

Accident hazard

- Adapt riding style: 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 service facility, preferably an authorized BMW Motorrad Retailer.

Engine warning



General warning light shows red.



The engine symbol is displayed



WARNING

Damage to the engine when it is in the emergency operating mode

Accident hazard

- Adapt riding style: Ride slowly, avoid rapid acceleration and passing maneuvers.
- If possible, have the motorcycle picked up and the malfunction source eliminated by a specialized service facility, preferably an authorized BMW Motorrad Retailer.◀

Possible cause:

The engine control unit has diagnosed a fault, which can lead to a severe secondary fault. The engine is in the emergency-operation mode.

- Avoid high load and engine speed ranges if possible.
 - Have the malfunction corrected as soon as possible at an authorized service facility, preferably an authorized BMW Motorrad Retailer.
- » Continued driving is possible, however it is not recommended.

Bulb defective



General warning light shows yellow.



+ "LAMP" is indicated.



WARNING

Overlooking the vehicle in traffic due to a defective light source on the vehicle

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:

Light source defective.

- Locate defective light source with visual check.
- Replacing bulbs for low-beam and high-beam headlight (➡ 117).
- Replacing bulb for parking light (➡ 118).
- Replacing bulb for brake and rear light (➡ 119).
- Replacing bulb for front and rear turn indicator (➡ 120).

Outside temperature warning

– with onboard computer^{OE}

"x . x ° F" (outside temperature) flashes.

Possible cause:

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



WARNING

Risk of black ice, even above 37 °F (3 °C)

Accident hazard

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

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 the ambient temperature drops below 37 °F (3 °C) the temperature display flashes as a warning to indicate 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.

Outside temperature display

– with onboard computer^{OE}

 When the outside temperature drops 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.

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.



WARNING

Risk of black ice, even above 37 °F (3 °C)

Accident hazard

- At a low outside temperature, icy conditions must be expected on bridges and in shady road areas. ◀

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 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 light 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 routine was not completed; the ASC function is not available. The engine must be running and the motorcycle

must be moving at a speed of at least 5 km/h in order for the ASC self-diagnosis to complete.

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

ASC switched off

- with Automatic Stability Control (ASC)^{OE}



ASC indicator and warning light lights up.

Possible cause:

The ASC has been deactivated by the rider.

- Switch ASC on.

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.

- It remains possible to continue riding. It must be noted that the ASC function is not available. Observe additional information on special situations which can lead to ASC fault codes (→ 90).
- Have the malfunction corrected as soon as possible at an authorized service facility, preferably an authorized BMW Motorrad retailer.

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 is completely discharged. Operation of the anti-theft alarm system is no longer ensured when the motorcycle's battery is disconnected.

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

Tire inflation pressure is at limit of approved range

- with Tire Pressure Monitor (TPM)^{OE}



General warning light shows yellow.



+ "x . x" (the critical tire 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 is outside approved range

- with Tire Pressure Monitor (TPM)^{OE}



General warning light flashes red.



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



WARNING

Tire inflation pressure is outside approved range.

Poorer handling characteristic of the motorcycle.

- Adapt your style of riding accordingly. ◀

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.

Sensor defective or system error

- with Tire Pressure Monitor (TPM)^{OE}



General warning light shows yellow.



+ "---" or "--- ---" is displayed.

Possible cause:

Wheels without TPC/RDC sensors are mounted.

- Retrofit wheel set with TPC/RDC sensors.

Possible cause:

1 or 2 TPC/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 Monitor (TPM)^{OE}



General warning light shows yellow.



+ "RdC" is displayed



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.

Transmission error

– with Tire Pressure Monitor (TPM)^{OE}



+ "--" or "--- --" is displayed.

Possible cause:

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

- Watch the TCP/RDC display at a higher rate of speed. 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.

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.

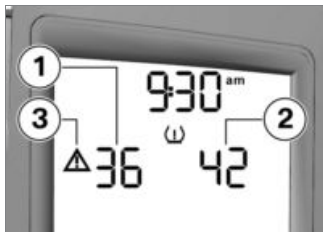
- Watch the TPC/RDC display in another environment. A continuous error is only present if the general warning light also lights up.

In this case:

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

Tire pressure

– with Tire Pressure Monitor (TPM)^{OE}



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 indicated. The transfer of the tire pressure values does not begin until a speed of 19 mph (30 km/h) is exceeded for the first time.

The displayed tire pressures refer to a tire air temperature of 68 °F (20 °C).



If the warning triangle **3** symbol appears at the same time, the display is a warning. The affected tire pressure flashes. If the level concerned is borderline in terms of the permissible tolerance, the general warning light lights up yellow. If the monitored tire inflation pressure is outside the specified range the general warning light will flash in red.

Further information on BMW Motorrad TPC/RDC can be found starting from page (➡ 91).

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 motorcycle 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 (1000 km), the remaining miles (kilometers) **1** are counted down in 62-miles steps (100-km steps). They are briefly displayed following the Pre-Ride-Check.



When a service date elapses without service, the universal warning light lights up in yellow, appearing together with the date and mileage (kilometer)

display. The "Service" message is displayed continuously.

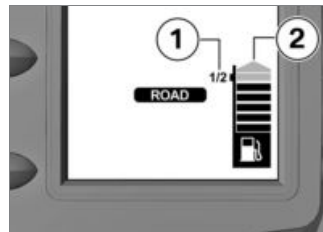


NOTICE

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.◀

Fuel gage

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.



The **2** tip indicates that the fuel tank is more than half full. If the fuel gage drops to the 1 / 2 mark **1**, the fuel tank is still half full. Now, the fill level is exactly displayed.

If the fuel reserve has been reached, the low-fuel warning light is switched on.

Fuel reserve

The fuel quantity that is in the fuel tank when the low-fuel warning light switches on depends on the riding dynamics: the more substantially the fuel is moved in

the tank (as a result of frequently changing lean angles, frequent braking and acceleration), the more difficult it becomes to determine the fuel reserve. However, the fuel tank still contains at least the fuel reserve specified on the back cover.



After the low-fuel warning light is switched on, the distance ridden since this point in time is indicated.

The distance that can still be traveled with the fuel reserve depends on the riding style (on the consumption) and on the fuel quantity that was still available at the time of switch-on (see previous explanation).

The odometer for the fuel reserve is reset when the fuel quantity after refueling is greater than the fuel reserve.

Operation

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Steering and ignition lock

Keys

You are provided with 2 ignition keys. Should you lose your keys please refer to the information regarding the electronic immobilizer (EWS) (► 43).

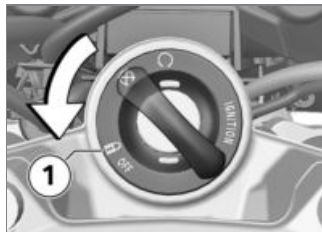
The ignition lock, fuel filler cap and seat lock are operated with the same key.

- with sport case^{OA}
- or
- with touring case^{OA}
- or
- 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.

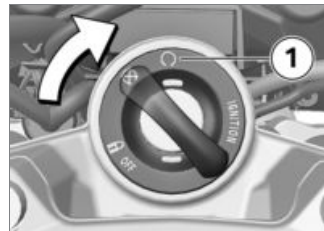
Locking handlebars

- Turn handlebars to left.



- Turn key to position **1** while moving handlebars slightly.
 - » Handlebars are locked.
 - » Key can now be removed.

Switching on ignition



- Insert key into the ignition lock and turn key to position **1**.
 - » Parking lights and all function circuits are switched on.
 - » Pre-Ride-Check (► 77)
 - » ABS self-diagnosis (► 78)
- with Automatic Stability Control (ASC)^{OE}
 - » ASC self-diagnosis (► 79)<

Switch off ignition



- Turn key to position **1**.
 - » Light switched off.
 - » Handlebars not locked.
 - » Key can now be removed.
 - » Electrically powered accessories remain operational for a limited period of time.
 - » Battery can be recharged via onboard socket.

Electronic immobilizer

The motorcycle's electronic circuitry monitors the data stored in the ignition key through a ring antenna incorporated in the igni-

tion 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 vehicle 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.

Ignition keys are available only 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.

Emergency on/off switch (kill switch)



- 1 Emergency on/off switch (kill switch)



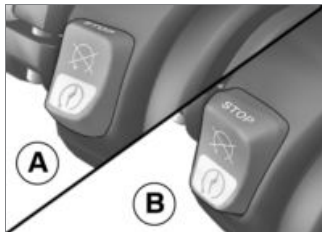
WARNING

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 is switched off
B Operating position

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 headlights automatically come on in their low-beam mode as soon as you start the engine.

High-beam headlight and headlight flasher



- Press switch 1 toward front to switch on high-beam headlight.
- Pull switch 1 toward rear to actuate headlight flasher.

Parking lights

- Switch off ignition.



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

Hazard warning lights system

Operate hazard warning flashers

- Switch on the 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 turn off the hazard warning lights system.

Turn indicators

Operate turn indicators

- Switch on ignition.



- 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** to switch off the turn indicators.



NOTICE

The turn signals automatically switch off when the defined riding time and distance have been reached. The defined riding time and distance can be set by an authorized BMW Motorrad retailer. ◀

Display

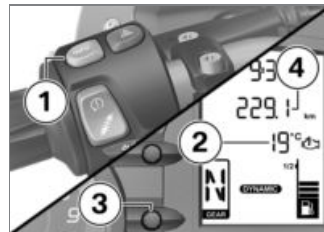
Selecting display readings

- Switching on ignition (▶ 42).



- Press button **1** to select the display in value area **2**.
- The following values can be indicated:
- Total kilometers (in illustration)
 - Trip distance 1 (Trip I)
 - Trip distance 2 (Trip II)
 - Warnings if necessary

– with onboard computer^{OE}



- Actuate INFO **1** to select the display in the value range **2**. The following data can be displayed:



Outside temperature



Coolant temperature



Average speed



Average fuel consumption



Current fuel consumption



Mileage covered since reaching the fuel reserve

- Press button **3** to select the display in value area **4**.

The following values can be indicated:

- Total kilometers (in illustration)
- Trip distance 1 (Trip I)
- Trip distance 2 (Trip II)
- Warnings if necessary<

Resetting the trip odometer

- Switching on ignition (➡ 42).
- Selecting display readings (➡ 46).
- » The desired trip odometer is selected.
- TRIP I or TRIP II is displayed.



- Keep INFO **1** pressed down until the trip odometer **2** is reset.

– with onboard computer^{OE}



- Press and hold button **1** until tripmeter **2** has been reset.<

Resetting average data

– with onboard computer^{OE}

- Switching on ignition (➡ 42).
- Selecting display readings (➡ 46).



Average fuel consumption



Average speed

» The symbol of the desired average value is displayed.



- Keep INFO **1** pressed down until the displayed average value is reset.

Clock

Set clock

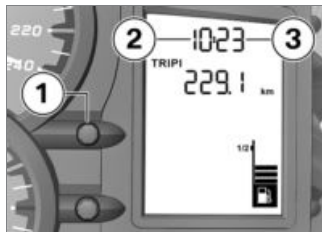


WARNING

Adjusting the clock while riding

Accident hazard

- Adjust the clock only when the motorcycle is stationary. ◀
- Switching on ignition (➡ 42).

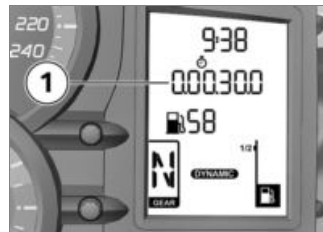


- Press and hold button **1** until hours **2** flash.
 - Press button **1** repeatedly until desired hours are shown.
 - Press and hold button **1** until minutes **3** flash.
 - Press button **1** repeatedly until desired minutes are shown.
 - Press and hold button **1** until minutes do not flash anymore.
- » Setting is completed.

Stopwatch

– with onboard computer^{OE}

Stopwatch function

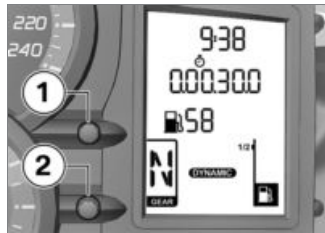


As an alternative to the odometer, the stopwatch **1** can be displayed. The display consists of hours, minutes, seconds and tenths of a second separated by dots.

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 re-set stopwatch.

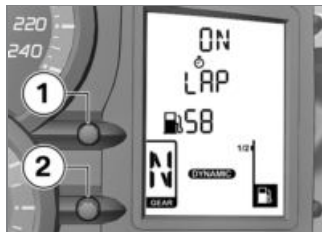
Laptimer



To enable improved operation of the stopwatch while riding (as a Laptimer), the functions of the INFO **1** button and the functions of the **2** button can be interchanged. The stopwatch and the trip odometer are then operated using INFO **1** button; the onboard computer must be operated using the **2** button.

Interchanging button functions

- Switching on ignition (➡ 42).



- 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 (Laptimer) and ON or OFF are shown.
- Press button **1** repeatedly until desired state is shown.
 - » ON: stop watch is operated by INFO button on left-hand multifunction switch.

» 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.

Automatic Stability Control (ASC)

– with Automatic Stability Control (ASC)^{OE}

Switching the ASC function off

- Switch on the ignition.



NOTICE

The ASC function can also be deactivated while driving.◀



- Press and hold the **1** button until the ASC indicator and warning light changes its display behavior.



ASC indicator and warning light lights up.

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



ASC indicator and warning light continues to be lit up.

- » The ASC function is switched off.

Switching the ASC function on

- Switch ignition off and then on again to reactivate ASC function.



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 5 km/h, an ASC fault has occurred.◀



- Alternatively, press and hold the **1** button until the ASC

indicator and warning light changes its display behavior.

 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.

- » The ASC function is switched on.

Electronic suspension adjustment (ESA)

- 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.

Viewing current setting

- Switching on ignition ( 42).



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



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 automatically disappears again after a short time.

Setting suspension compliance

- Switch on ignition.



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

To select a different setting for damping action:

- Press button **1** repeatedly until the desired setting appears in the multifunction display.



NOTICE

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

- » If button **1** remains unpressed for an extended period, the displayed damping setting is activated.
- » The ESA display disappears once the adjustment procedure has been completed.

Riding mode

Use of the riding modes

BMW Motorrad has developed 3 riding scenarios for your motorcycle from which you can select the one matching your situation:

- Riding on wet roads.
- Riding on dry roads.
- with riding modes Pro^{OE}
- Brisk riding on dry roads.

For each of those 3 scenarios, the optimum balance between throttle response, ABS and ASC control is provided.



NOTICE

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

Setting riding mode

- Switching on ignition (➡ 42).



NOTICE

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



- Actuate **MODE 1**.
- » The selection arrow **2** is displayed.
- Actuate **MODE 1** enough times for the selector arrow **2** to point to the desired riding mode.
- » The most recent riding mode setting **3** remains on the display.
- » While parked:
 - Activation takes place after approx. 2 seconds.
- » While in motion, the selected riding mode is activated pro-

vided that the following requirements have been satisfied:

- Throttle grip is in neutral position for a short time.
- Brake lever is not being operated.
- » Activation process has finished.
- The riding mode setting **3** is displayed without the selector arrow **2**.

For riding on rain-slicked roads:

- Activate the RAIN riding mode.

For riding on dry roads:

- Activate the ROAD riding mode.

– with riding modes Pro^{OE}



For dynamic riding on dry roads:

- Activate the DYNAMIC riding mode **4**.◀

Heated handlebar grips

– with heated grips^{OE}

Operating heated grips

- Starting engine (→ 77).



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 **2** is shown.

The handlebar grips can be heated at two different levels. The second level is used for fast

heating of the grips; the switch should then be switched back to the first level.



Approx. 50 % heater output



100 % heating output

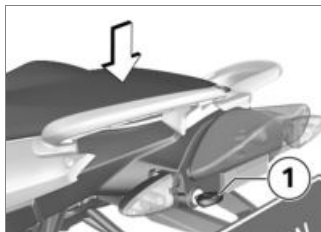
» If no further changes are made the selected heating level is adopted as the setting.

- To switch off the heated grip, press button **1** repeatedly until heated grip symbol **2** is not shown anymore in the display.

Seat

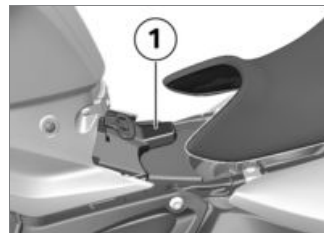
Remove the seat

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



- Turn and hold ignition key **1** in seat lock to left while pressing seat downward at rear to support movement.
- Raise seat at rear and release key.
- Take off seat and place on a clean surface with upholstered side facing downward.

Install seat



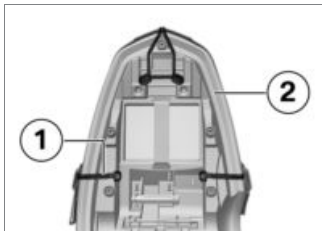
- Insert seat in bracket **1** and press down firmly at rear.
- » The seat's detent mechanism will be heard to engage.

Passenger seat cover

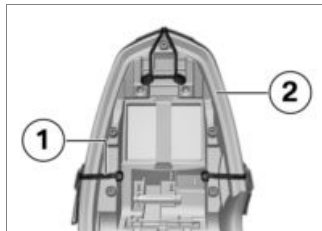
– with passenger seat cover^{OE}

Removing passenger seat cover

- Remove the seat (➡ 54).
- Turn over seat.



- Release retaining loops **1** and remove passenger seat cover from seat **2**.



- Place passenger seat cover on seat **2** and fasten retaining loops **1**.

Install passenger seat cover

- Remove the seat (▮▮▮▮▶ 54).
- Turn over seat.

Alarm system

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Overview

- with anti-theft alarm system (DWA)^{OE}

General information on DWA

Any attempt to move the vehicle, change its position, start it without authorization, or disconnect the vehicle 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.

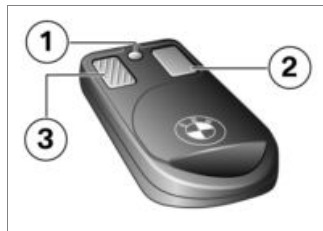
Protection of motorcycle battery

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 (▮▮▮ 60)
- 3** Left-hand button (ribbed) (▮▮▮ 59)

Activation

- with anti-theft alarm system (DWA)^{OE}

Activation with motion sensor



The alarm function can be activated in 2 different ways:

- Pressing the **1** button once on the remote control. The alarm function is enabled after 15 seconds. If switched off more than one minute ago, the **1** button must be pressed for longer than one second.
- Turning off the ignition (if programmed). The alarm function is enabled after 45 seconds.

Activation is confirmed by two flashes of the turn signals and the sounding of two alarm tones.

Protection of the battery in the control unit (DWA disabled)

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 DWA alarm can be set off by:

- Movement sensor.
- Switching on ignition with an unauthorized motorcycle 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 canceled at any time by

pressing the **1** button on 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 DWA LED indicates the reason for any alarm activation which may have occurred for one minute:

- 1x flash: movement sensor: motorcycle was tilted forward/back.
- 2x flashes: movement sensor: motorcycle was tilted to the side.
- 3x flashes: ignition was switched on using an unauthorized key.

- 4x flashes: anti-theft alarm system was disconnected from the vehicle 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



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.◀



- Actuate the **1** button on the remote control once **or** switch on the ignition with an authorized ignition key.
- » Turn indicators light up once.

- » Alarm tone sounds once (if programmed).
- » Alarm function is deactivated.

Protection of the battery (DWA activated)

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 signals 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 (III → 60).
- Switch on the 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.

- Actuate the **1** button or **2** button.

- **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?

Programming is terminated by turning off the ignition before the last program step, or automatically whenever more than 30 seconds lapse between two programming steps.

The data are not saved when programming is canceled.

Save programming

Programming is stored when the ignition is switched off after the last programming step, or automatically 30 seconds after the last programming step.

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

Logging on additional remote controls

– 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 the 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 the **1** button and the **2** button.
 - » LED lights up.
- Actuate the **1** button or **2** button.
 - » 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 the **1** button and the **2** button.
- » LED lights up.
- Actuate the **1** button or the **2** button.
- » 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 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

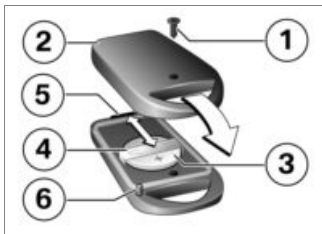


ATTENTION

Unsuitable or improperly inserted batteries

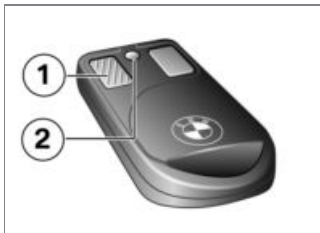
Component damage

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



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

- Install new battery. Ensure that positive terminal of battery is at top.
- Fit lower housing section to lug **5** on front edge and close it. When doing so, pay attention to the 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.

Setting

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Mirrors

Adjusting mirrors



- Move mirror into desired position by twisting.

Adjust mirror arm



- Slide protective cap **1** up over screw connection on mirror arm.
- Brace nut **2** and turn mirror arm to desired position.
- Slide protective cap over threaded fastener.

Headlight

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 motorcycle 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.◀

Headlight range adjustment



When the spring pretension adjustment is no longer able to maintain the correct beam height to avoid blinding oncoming traffic owing to high vehicle loads:

- Turn adjusting screw **1** counterclockwise using open-ended wrench **2** (onboard toolkit) to lower headlight.

If the motorcycle is ridden again with lower payload:

- Have the headlight default setting readjusted by an authorized workshop, preferably an

authorized BMW Motorrad retailer.

Clutch

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 be-

tween 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

Brake lever



WARNING

Modified position of the brake fluid reservoir

Air in the brake system

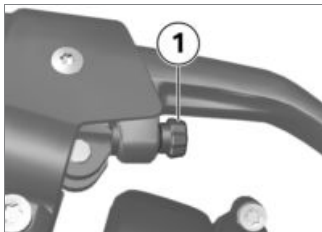
- Do not twist the handlebar fitting or the handlebars.◀

⚠ WARNING

Adjusting the brake lever while driving

Accident hazard

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



- Turn the adjusting screw **1** clockwise in order to increase the clearance between the brake lever and handlebar grip.
- Turn the adjusting screw **1** counterclockwise in order to reduce the clearance between

the brake lever and handlebar grip.



NOTICE

The adjusting screw is easier to turn if you push the brake lever forwards. ◀

Spring preload

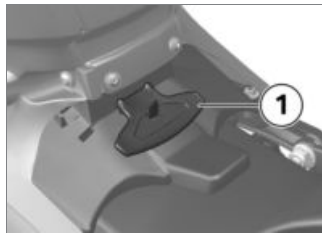
Adapting to vehicle load

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

Adjusting spring preload at rear wheel

- without Electronic Suspension Adjustment (ESA)^{OE}

- Park motorcycle, ensuring that support surface is firm and level.
- Remove the seat (➡ 54).



- 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 **1** clockwise using toolkit.
- To decrease spring preload, turn adjustment wheel **1** counterclockwise using toolkit.



Basic setting of spring preload, rear

Turn adjustment wheel **counter-clockwise** up to stop. (One-up without load)

Turn adjuster wheel up to stop **counter-clockwise**, then 10 turns clockwise. (One-up with load)

Turn adjustment wheel **clockwise** up to stop. (Two-up with load)

- Remount toolkit.
- Install seat (►► 54).

Damping

Adapting to road condition

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.

Adjusting damping on rear wheel

- without Electronic Suspension Adjustment (ESA)^{OE}
- Park motorcycle, ensuring that support surface is firm and level.



- To increase damping, turn adjusting screw **1** in clockwise direction.
- To reduce damping, turn adjusting screw **1** in counter-clockwise direction.



Basic setting of rear wheel rear-wheel damping

Turn adjustment wheel clockwise up to stop, then turn back by 1.5 turns. (One-up without load)



Basic setting of rear wheel rear-wheel damping

Turn adjustment wheel clockwise up to stop, then turn back by 0.5 turns. (One-up with load)

Turn adjustment wheel clockwise up to stop, then turn back by 0.5 turns. (Two-up with load)

Riding

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Safety information

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.

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 sport case^{OA}
- or
- with touring 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 and cargo as low and as close to the center of the motorcycle as possible.
- 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 bag^{OA}
- Observe the maximum load capacity of the tank rucksack (see also "Accessories" chapter).



Payload of tank rucksack

≤11 lbs (≤5 kg)◀

- with luggage rack^{OE}
- Observe the maximum load capacity of the luggage rack (see also "Accessories" chapter).



Payload of luggage rack

max 22 lbs (max 10 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
- Unevenly distributed load
- Loose clothing
- Insufficient tire inflation pressure
- Tire tread in poor condition
- Installed luggage systems, such as cases, topcases and tank rucksacks. Observe the maximum permissible speed indicated on the label in the respective luggage system.

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

Intense heating up of engine and exhaust system while riding

Burn hazard

- After parking the motorcycle, make sure that no persons or objects come into contact with the engine and exhaust system.◀

Catalytic converter

There is a danger of overheating and damage if misfiring causes unburned fuel to enter the catalytic converter.

For this reason, observe the following points:

- 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 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 due to insufficient cooling; in extreme cases vehicle 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, expiration of warranty

- Do not make any modifications.◀

Observe checklist

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

If there is a change in the load status

- without Electronic Suspension Adjustment (ESA)^{OE}
- Adjusting spring preload at rear wheel (▮▮▮ 70).
- Adjusting damping on rear wheel (▮▮▮ 71).◀
- with Electronic Suspension Adjustment (ESA)^{OE}
- Setting suspension compliance (▮▮▮ 51).◀

Always before riding off

- Check operation of the brake system.
- Check operation of the lighting and signal system.

- Check clutch function (▮▮▮ 103).
- Check tire tread depth (▮▮▮ 106).
- Check secure hold of cases and luggage.

At every third refueling stop

- Check engine oil level (▮▮▮ 96).
- Check front brake pad thickness (▮▮▮ 99).
- Checking rear brake pad thickness (▮▮▮ 100).
- Checking front brake fluid level (▮▮▮ 101).
- Check rear brake fluid level (▮▮▮ 102).
- Checking coolant level (▮▮▮ 104).
- Lubricating chain (▮▮▮ 115).
- Check chain sag (▮▮▮ 115).

Starting

Starting engine

ATTENTION

Sufficient transmission gear-box 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.◀
- Switching on ignition (▮▮▮ 42).
 - » Pre-Ride-Check is carried out. (▮▮▮ 77)
 - » ABS self-diagnosis is performed. (▮▮▮ 78)
 - with Automatic Stability Control (ASC)^{OE}
 - » ASC self-diagnosis is performed. (▮▮▮ 79)◀
- 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 lever to disengage clutch and twist 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. (▮▮▮ 148)

Pre-Ride-Check

After the ignition is turned on, the instrument cluster performs a test of the instrument dials and the indicator and warning 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 stops. At the same time, all indicator and warning lights are activated consecutively.

Phase 2

The universal warning light 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 indicator and warning lights are now turned off in reverse sequence.

If one of the needles fails to move, or if one of the warning and indicator lights 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 BMW Motorrad 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 the diagnostic system while motorcycle is parked.



ASC indicator and warning light flashes slowly.

Phase 2

Checking the diagnosable system components while the motorcycle is moving.



ASC indicator and warning light flashes slowly.

ASC self-diagnosis completed

The ASC indicator and warning light goes out.

- Check the display of all indicator and warning lights.

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

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

Running in Engine

- In the period preceding the initial inspection attempt to change rpm and engine load as frequently as possible, avoiding extended periods at constant rpm.
- Try to do most of your riding during this initial period on twisting, fairly hilly roads, avoiding highways if possible.
- Observe the engine run-in speeds.



Engine run-in speed

<5000 min⁻¹ (Mileage 0...746 miles (0...1200 km))

no full throttle (Mileage 0...746 miles (0...1200 km))

- Observe mileage, after which the running-in check should be performed.



Mileage until first
running-in check

311...746 miles
(500...1200 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 procedure 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.◀

Shifting gears

– with onboard computer^{OE}

Engine speed warner

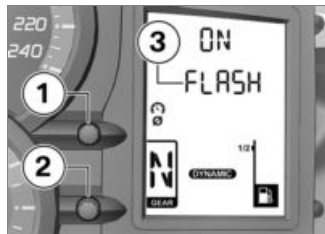


The engine speed warner signals to the rider that the red engine speed range has been reached. The red indicator lamp **1** of the engine speed warner flashes to provide this signal.

This signal lamp continues to flash until the rider either upshifts to a higher gear or reduces the engine speed. The engine speed warner can be activated or deactivated by the rider.

Activating the engine speed warner

- Switching on ignition (III 42).



- Press and hold button **1** and button **2** simultaneously until display changes.
 - » FLASH **3** and ON or OFF are displayed.
- Press button **1** until desired state is shown.
 - » ON: engine speed warner activated.
 - » OFF: engine speed warner deactivated.

- To save the setting made, press and hold button **1** and button **2** simultaneously until the display changes.

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 at 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 increasing 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 "forced braking" often practiced in which the brake pressure is generated as quickly as possible and with great force, the dynamic load distribution cannot follow the increased deceleration 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

Reduced 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 vehicle.
- 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

Poorer braking action due to moisture and dirt

Accident hazard

- 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.
- On slopes point the motorcycle uphill and engage 1st gear.



ATTENTION

Poor ground conditions in area of stand

Component damage cause 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 slopes point the motorcycle uphill and engage 1st gear.

Center stand

– with center stand^{OE}

- Switch off engine.
- On sloping roads, park the motorcycle in the "uphill" direction.



ATTENTION

Poor ground conditions in area of stand

Component damage cause by tipping over

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



ATTENTION

Center stand folds if subject to sharp movements.

Component damage cause 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.

Refueling

Fuel specifications

Requirement

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



ATTENTION

Refueling with leaded fuel

Damage to 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
89 AKI (95 ROZ/RON)
89 AKI

Refueling procedure



WARNING

Fuel is highly flammable

Fire and explosion hazard

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



ATTENTION

Component damage

Component damage due to overfilled fuel tank

- If the fuel tank is overfilled, the excess fuel will flow into the carbon canister and lead to component damage there.

- Only fill the fuel tank to the lower edge of the fuel filler neck. ◀



ATTENTION

Contact of fuel and plastic surfaces

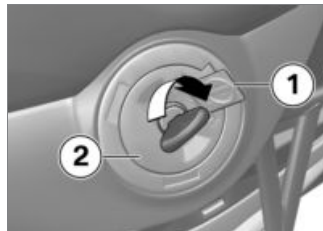
Damage to surfaces (become unattractive or cloudy)

- Immediately clean plastic surfaces 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 cover **1**.
- Unlock fuel-tank cap **2** with ignition key by turning clockwise, then swivel it up.



- Refuel with a fuel meeting the specifications below, continu-

ing until fuel is no higher than lower edge of 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 gal (Approx. 15 l)



Fuel reserve

Approx. 3.2 quarts (Approx. 3 l)

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

Secure motorcycle for transport

- Protect all component surfaces against which straps are routed against scratching.

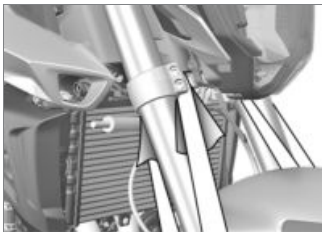


ATTENTION

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 rear straps on both sides to the passenger foot-pegs and then tighten them.
- Tension all straps evenly; the vehicle should be pulled down against its springs with the suspension highly compressed.

Technology in detail

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Automatic Stability Control (ASC)	90
Tire pressure control (RDC)	91

General instructions

More information on the topic of technology is available at:

bmw-motorrad.com/technik

Antilock Brake System (ABS)

How does the 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 sit-

uation occurs, ABS is activated and the brake pressure is adjusted to the maximum transferable braking force. This enables the wheels to continue to turn and maintains driving stability regardless of the road surface condition.

What happens when rough roads are encountered?

Rough roads can briefly lead to a loss of contact between the tires and the road surface. The transferable braking force is then 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, ABS must assume extremely low friction coefficients (gravel, ice, snow) so that the wheels turn in every imaginable case and driving sta-

bility is ensured. After detecting the actual conditions, the system adjusts the optimum brake pressure.

Lifting off rear wheel

However, during extremely heavy and rapid decelerations it is possible that the BMW Motorrad ABS 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 race track.

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. A self-diagnosis routine must be completed before the error will be displayed.

Apart from problems with the BMW Motorrad ABS, unusual

riding conditions can also cause a fault message to be generated:

- Driving on the rear wheel (wheelie) for a longer period.
- Rear wheel rotating with the vehicle held stationary by applying the front brake (burn-out).
- Warm-up on the center 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 an unusual driving condition, the ABS function can be reactivated by switching the ignition off and then on again.

How important is regular maintenance?



Failure to have maintenance performed on the brake system regularly.

Accident hazard

- To ensure that the ABS is in a properly maintained condition, it is vital that the specified service intervals be observed. ◀

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.

**WARNING****Braking in curves**

Risk of accident despite ABS

- The rider is always responsible for adapting his/her driving style.
- Do not reduce the additional safety function with careless riding or unnecessary risks. ◀

Automatic Stability Control (ASC)

– with Automatic Stability Control (ASC)^{OE}

How does the ASC work?

BMW Motorrad ASC compares the wheel speeds of the front and rear wheel. Differences in the relative rotation speeds allow the system to determine the slip rate, and thus the stability reserves at the rear wheel. The engine-management system

adapts the engine torque when the slip limit is exceeded.

What are the design characteristics of the ASC?

BMW Motorrad ASC is designed as an assistant system for the rider for the use on public roads. The extent to which the rider affects ASC control can be considerable (weight shifts when cornering, items of luggage loose on the motorcycle), especially when style of riding takes rider and machine close to the limits imposed by physics.

The system is not optimized for the special conditions encountered under extreme weather during off-road and racing use. 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.

The system compares the rotation speeds of the front and rear wheels to detect any tendency for the rear wheel to spin or lose traction. If the system registers implausible data for an extended period of time it will deactivate the ASC functionality as safety precaution and a display will alert you to an ASC error. A self-diag-

nosis routine must be completed before the error will be displayed. The following unusual driving conditions may lead to automatic deactivation of BMW Motorrad ASC:

- Driving on the rear wheel (wheelie) for a longer period.
- Rear wheel rotating with the vehicle held stationary by applying the front brake (burn-out).
- Warm-up on the center or auxiliary stand at idle or with gear engaged.

The ASC is reactivated by switching the ignition on and off and then riding at a speed above 5 km/h.

If the front wheel loses contact to the ground during extreme acceleration, the ASC reduces the engine torque until the front wheel touches the ground again.

BMW Motorrad recommends that you respond to this condition by twisting back the throttle grip somewhat to return to stable dynamic operating conditions as quickly as possible.

On a slippery surface, the throttle grip must never be suddenly turned back completely without pulling the clutch at the same time. The engine's braking torque could cause the rear wheel to lock, resulting in unstable motorcycle conditions. This case cannot be controlled by BMW Motorrad ASC.

Tire pressure control (RDC)

- with Tire Pressure Monitor (TPM)^{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 that suppresses transmission of the monitored data until a speed of approx. 30 km/h is reached. The display shows "– –" for each tire until the tire-pressure signal is received for the first time. The sensors continue to transmit the measured values for approx. 15 minutes after the motorcycle comes to a stop.

If a TPC/RDC control unit is installed without the wheels being equipped with sensors, a fault code is output.

Temperature compensation

The tire pressure is temperature-dependent, i.e. it increases or decreases together with the tire air temperature. Tire air temperature, in turn, varies according to the ambient temperature, as well as in response to riding style and trip duration.

The tire pressures are shown with temperature compensation in the multifunction display. They are based on a tire air temperature of 68 °F (20 °C). No temperature compensation is applied in tire pressure testers at filling stations. The measured tire pressure is dependent on the tire air temperature. As a result, in most cases the values displayed there do not match the values shown in the multifunction display.

Tire inflation pressure ranges

The TPC/RDC control unit distinguishes between three 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 pressure should be 36 psi (2.5 bar); in the multifunction display, 33 psi (2.3 bar) is shown. 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 pressure.

Maintenance

General instructions.....	94	Jump-starting.....	124
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General instructions

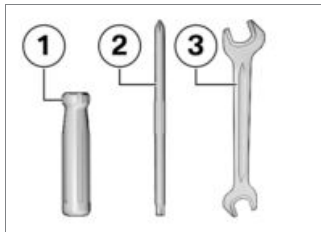
The "Maintenance" chapter describes work involving the checking and replacement of wear parts that can be performed with a minimum of effort.

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".

Further information about maintenance and repair work can be obtained on DVD through your authorized BMW Motorrad retailer.

Special tools and thorough specialized knowledge are required to carry out some of the work. If you are in doubt, consult a specialist service facility, preferably your authorized BMW Motorrad retailer.

Tool kit

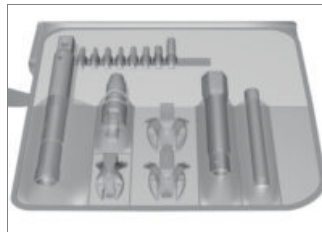


- 1** Screwdriver handle
- 2** Reversible screwdriver insert
Phillips PH1 and Torx T25
 - Replacing bulb for front and rear turn indicator (➡ 120).
 - Replacing bulb for brake and rear light (➡ 119).
 - Removing battery (➡ 126).
 - Remove body panels.
- 3** Open-ended wrench
Wrench size: 13/17 mm

- 3**
 - Adjust mirror arm (➡ 68).
 - Headlight range adjustment (➡ 69).

Service tool kit

- with service tool set^{OA}



For more extensive work (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.

Front wheel stand

Mount front wheel stand



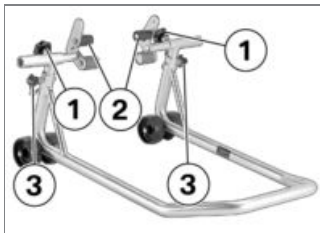
ATTENTION

Use of the BMW Motorrad front wheel stand without an additional center or auxiliary stand

Component damage cause by tipping over

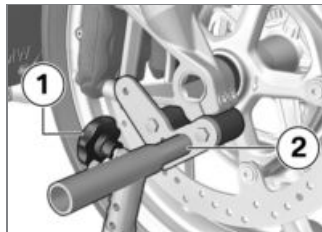
- Place the motorcycle on the center stand or an auxiliary stand before lifting it with the BMW Motorrad front wheel stand.◀
- without center stand^{OE}
- Make sure ground is level and firm and place motorcycle on a suitable auxiliary stand. BMW Motorrad recommends the BMW Motorrad auxiliary stand.◀

- with center stand^{OE}
- Place motorcycle on center stand, ensuring that it is resting on a firm and level support surface.◀

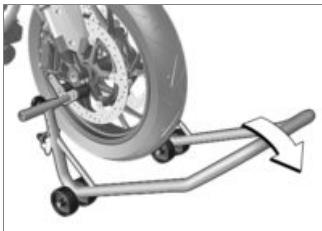


- Use basic stand with front wheel mount. The basic stand and its accessories are available through your authorized BMW Motorrad retailer.
- Loosen mounting screw **1**.
- Push two mounts **2** outward, continuing until front fork fits between them.
- Use locating pins **3** to set front wheel stand to desired height.

- Center front wheel stand relative to front wheel and push it against front axle.



- Align two mounts **2** so that front forks rest 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 center stand if the vehicle is raised too high

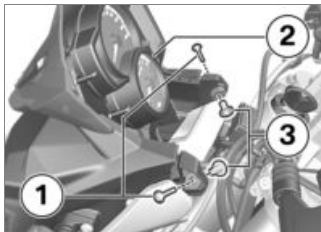
Component damage cause by tipping over

- 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 motorcycle is standing securely.<

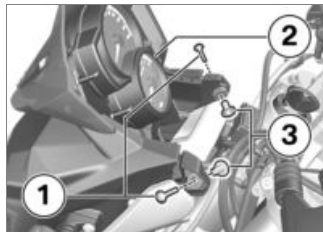
Bulb mask

Fold bulb mask downward



- Remove screws **1**.
- Swing bulb mask **2** upward while making sure that bushings **3** are installed.

Mounting bulb mask



- Swing bulb mask **2** upward while making sure that bushings **3** are installed.
- Install screws **1**.

Engine oil

Check engine oil level



ATTENTION

Misinterpretation of the oil filling quantity, as the oil level is temperature-dependent (the higher the temperature, the higher the oil level)

Engine damage

- Only check the oil level after a longer journey or when the engine is warm.◀
- Wipe area around oil fill location to clean it.
- Allow engine to idle until fan starts, then let it continue running for an additional minute.
- Switch off engine.



ATTENTION

Motorcycle tips to the side when raising

Component damage cause by tipping over

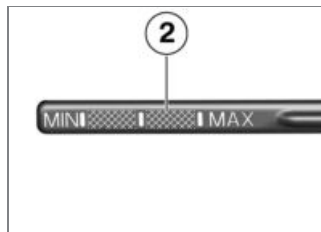
- Secure the motorcycle against tipping to the side, preferably with the assistance of a second person.◀
- Make sure ground is level and firm and hold motorcycle at operating temperature vertically.

– with center stand^{OE}

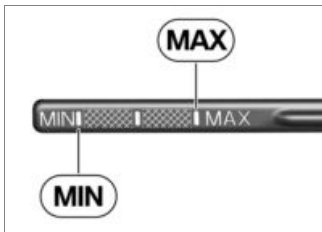
- Make sure ground is level and firm and place motorcycle at operating temperature on its center stand.◀



- Remove oil dipstick **1**.



- Clean measuring scale **2** using 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 the **MIN** and **MAX** marks



Engine oil, quantity for topping up

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

max 0.4 quarts (max 0.4 l) (Difference between MIN and MAX)

If oil level is below MIN mark:

- Top up engine oil (➡ 98).

If oil level is above MAX mark:

- Have fluid level corrected by an authorized workshop, preferably an authorized BMW Motorrad retailer.
- Install oil dipstick.

Top up engine oil



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. ◀
- Park motorcycle, ensuring that support surface is firm and level.
- Clean area adjacent to oil fill location.



- Remove oil dipstick **1**.



ATTENTION

Use of 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.
- Check engine oil level (▮▮▮➔ 96).
- Install oil dipstick.

Brake system

Check brake operation

- Operate the brake lever.
 - » Pressure point must be clearly perceptible.
- Actuate the footbrake lever.
 - » Pressure point must be clearly perceptible.

If no clear pressure points are perceptible:

- Have the brakes checked at an authorized workshop, preferably an authorized BMW Motorrad retailer.

Check front brake pad thickness

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



- Visually inspect left and right brake pads to determine their thickness. Viewing direction: between wheel and front suspension toward brake pads **1**.



Front brake-pad wear
limit

min 0.04 in (min 1.0 mm)
(Only friction material without
carrier plate. The wear mark-
ings (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

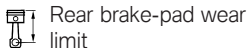
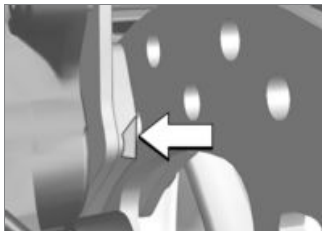
- In order to ensure the operating reliability of the brake system, make sure that the brake pads are not worn beyond their minimum thickness. ◀
- Have brake pads replaced at an authorized service facility, preferably an authorized BMW Motorrad retailer.

Checking rear brake pad thickness

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



- Conduct a visual inspection of the brake pad thickness. Direction of view: From rear looking at brake pads **1**.



min 0.04 in (min 1.0 mm)
(Only friction material without
carrier plate. The wear mark-
ings must be clearly visible.)

If the wear indicating mark is no
longer 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 brake pads replaced by a specialist service facility, preferably an authorized BMW Motorrad retailer.

Checking front brake fluid level

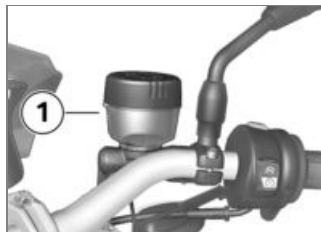
WARNING

Insufficient brake fluid in the brake-fluid reservoir

Considerably reduced braking
performance caused by air in the
brake system

- Check brake fluid level regularly.◀
- 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.



- 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 inspection)

Brake fluid, DOT4

The brake fluid level must not fall below the **MIN** marking.

If brake fluid level falls below the approved level:

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

Check rear brake fluid level



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. ◀
- 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. ◀



- 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

Brake fluid, DOT4

The brake fluid level must not fall below the **MIN** marking.

If brake fluid level falls below the approved level:

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

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.

Check clutch pedal free play



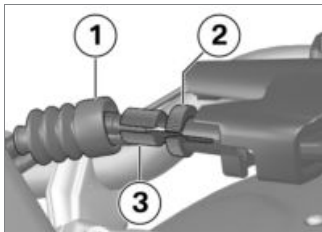
- Actuate the clutch lever until resistance can be felt. Observe cut-out between edges **1** and **2** in the handlebar fitting.

» The inner edge of cable mount **1** should move to outer edge **2** of the handlebar fitting.

If clutch pedal free play is outside tolerance:

- Adjust clutch pedal free play (➡ 104).

Adjust clutch pedal free play



- Slide rubber grommet **1** to the side.
- Loosen the nut **2**.
- To increase clutch pedal free play: turn adjusting screw **3** into handlebar fitting.
- To decrease clutch pedal free play: turn adjusting screw **3** out of handlebar fitting.
- Check clutch pedal free play (103).
- Tighten nut **2** while holding adjusting screw **3** to ensure

that it does not move out of position.

- Pull rubber grommet **1** over the nut.

Coolant

Checking coolant level

- Park motorcycle, ensuring that support surface is firm and level.
- Turn handlebars to left.



- Read off coolant level on expansion tank **1**. Viewing direction: from front through open-

ing of side panel at expansion tank.



Required coolant level

Between **MIN** and **MAX** marks on the expansion tank (Engine cold)

If coolant level drops below approved level:

- Add coolant.

Topping up coolant

- Remove the seat (54).

- Removing center fairing panel (➡ 121).
- Removing right fairing side panel (➡ 122).



- Open cap **1** of expansion tank.
- Add coolant up to specified level.
- Close cap of expansion tank.
- Installing right side panel (➡ 123).

Tires

Check tire pressure



WARNING

Incorrect tire inflation pressure

Poorer handling characteristic of motorcycle, reduction of tire service life

- Ensure proper tire inflation pressure. ◀
- Park motorcycle, ensuring that support surface is firm and level.
- Check tire pressures against data below.



Tire pressure, front

36.3 psi (2.5 bar) (with tire cold)



Tire pressure, rear

42.1 psi (2.9 bar) (with tire cold)

If the tire pressure is incorrect:

- Correct tire pressure.

Rims and tires

Checking rims

- Make sure ground is level and firm and park motorcycle.
- Visually inspect rims 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.
- Check tire tread depth in main tread grooves with wear indicators.



NOTE

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 the worn tires.

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. Detailed information can be obtained from your authorized BMW Motorrad retailer or online at

bmw-motorrad.com

Affect of wheel size on ABS

Wheel sizes greatly affect the function of the ABS system. 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 wheels not installed as standard equipment can seriously affect the control comfort of these systems.

The sensor rings 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.

TPC/RDC sticker

- with Tire Pressure Monitor (TPM)^{OE}



ATTENTION

Improper tire removal

Damage to the TPC/RDC sensors

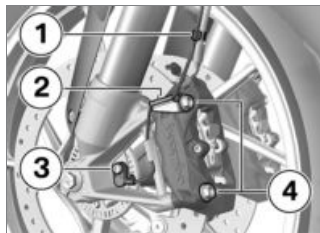
- Inform a specialist service facility or an authorized BMW Motorrad retailer on the fact that the wheel is equipped with a TPC/RDC sensor.◀

On motorcycles equipped with RDC, a corresponding sticker

is located on the wheel rim in close proximity to the TPC/RDC sensor.

Removing front wheel

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



- Detach wheel speed sensor lead from retaining clips **1** and **2**.
- Remove screw **3** and take wheel speed sensor out of bore.
- Mask off areas of wheel rim that could be scratched in the

process of removing the brake calipers.



ATTENTION

Unintentional pressing together of brake pads

Component damage when mounting the brake caliper or when pressing the brake pads apart

- Do not actuate the brakes with the brake caliper removed.◀
- Remove securing screws **4** of left and right brake calipers.

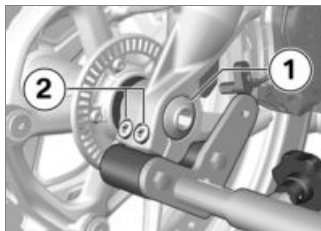


- Push brake pads **1** slightly apart by turning the brake caliper **2** back and forth against the brake rotor **3**.
- Mask off areas of wheel rim that could be scratched in the process of removing the brake calipers.
- Carefully pull brake calipers back and outward to remove them from the brake rotors.
- Raise front of motorcycle, preferably using a BMW Motorrad front wheel stand, continuing until the wheel rotates freely.

- Mount front wheel stand (1111 95).

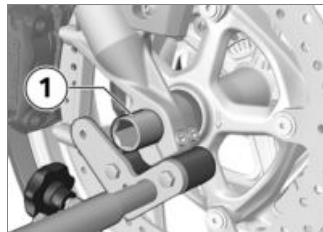


- Loosen axle clamping screws **1**.

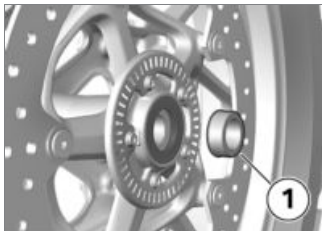


- Remove screw **1**.

- Loosen axle clamping screws **2**.
- Slightly press the quick-release axle inward for a better grip on the right side.



- Pull quick-release axle **1** out while supporting the front wheel.
- Place front wheel down and roll it forward out of the front suspension.



- Remove spacer bushing **1** from the wheel hub.

Installing front wheel

WARNING

Use of a wheel which does not comply with series specifications

Malfunctions in ABS operation

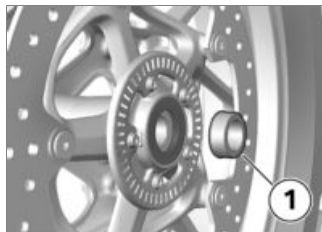
- Please see the information on the effect of wheel sizes on the ABS system at the beginning of this chapter.◀

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.◀



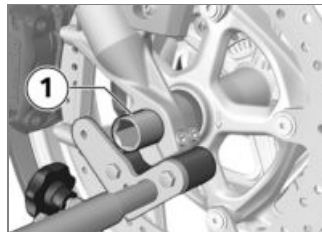
- Mount spacing bushing **1** on left side in wheel hub.

ATTENTION

Front wheel installation opposite the running direction

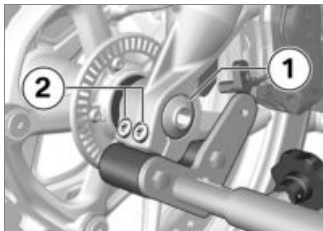
Accident hazard

- Observe running direction arrows on tire or rim.◀
- Roll front wheel into front suspension.



- Lift front wheel and install quick-release axle **1**.
- Remove front wheel stand and firmly compress front forks. Do not operate the brake lever at the same time.

- Mount front wheel stand (▶▶▶ 95).



- Install screw **1** with specified torque. Brace quick-release axle on the right side at the same time.



Screw in front wheel quick-release axle

37 lb/ft (50 Nm)

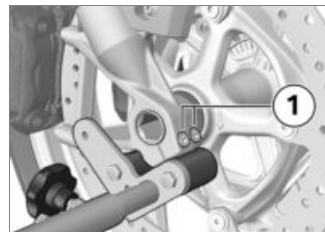
- Tighten axle clamping screws **2** to appropriate torque.



Pinch bolt on quick-release axle

Tightening sequence: Tighten the screws 6 times, alternating between one and the other each time

14 lb/ft (19 Nm)



- Tighten axle clamping screws **1** to appropriate torque.

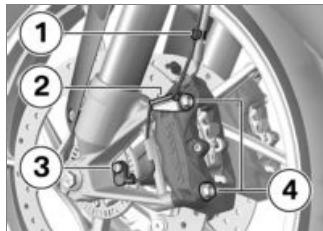


 Pinch bolt on quick-release axle

Tightening sequence: Tighten the screws 6 times, alternating between one and the other each time

14 lb/ft (19 Nm)

- Remove front wheel stand.
- Slide the brake calipers on the left-hand and right-hand side onto the brake rotors.



- Install securing screws **4** on left and right with specified torque.

 Brake caliper on telescopic forks

28 lb/ft (38 Nm)

- Remove adhesive tape from wheel rim.

WARNING

Brake pads do not contact the brake disc

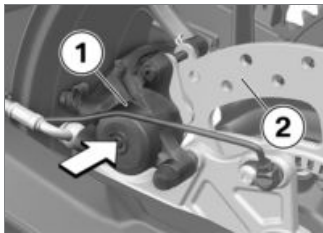
Risk of accident due to delayed braking effect.

- Before driving off, check that the braking effect kicks in without any delay. ◀
- Engage the brakes repeatedly, continuing until the brake pads seat against the rotors.
- Locate wheel speed sensor lead in the retaining clips **1** and **2**.
- Insert wheel speed sensor in bore and install screw **3**.

 Wheel speed sensor at front on fork

7 lb/ft (9 Nm)

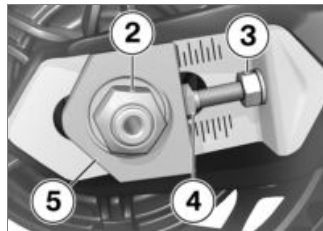
Removing rear wheel



- Press brake caliper **1** against brake disk **2**.
- » Brake pistons are pressed back.



- Remove screw **1** and take speed sensor out of bore.
- Make sure ground is level and firm and place motorcycle on a suitable auxiliary stand.
- with center stand^{OE}
- Place motorcycle on center stand, ensuring that it is resting on a firm and level support surface.<



- Remove axle nut **2** with washer.
- Loosen lock nuts **3** on left and right.
- Loosen adjusting screws **4** on left and right.
- Remove adjusting plate **5** and slide axle as far as possible to left.



- Remove quick-release axle **6** and take off 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 lost.◀

Installing rear wheel



WARNING

Use of a wheel which does not comply with series specifications

Malfunctions in ABS operation

- Please see the information on the effect of wheel sizes on the ABS system at the beginning of this chapter.◀

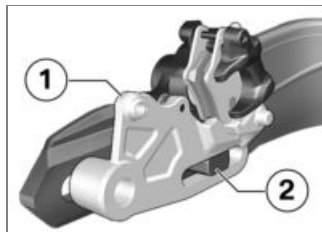


ATTENTION

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 brake caliper carrier **1** on guide **2**.

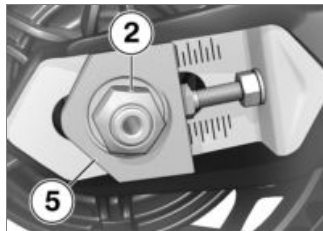
- Roll rear wheel into swing arm while guiding brake rotor between brake pads.



- 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** with washer, however do not tighten yet.
- without center stand^{OE}
- Remove auxiliary stand.<



- Insert wheel speed sensor in bore and install screw **1**.
- Adjust chain tension (116).

Chain

Lubricating chain



ATTENTION

Insufficient cleaning and lubrication of the drive chain

Increased wear

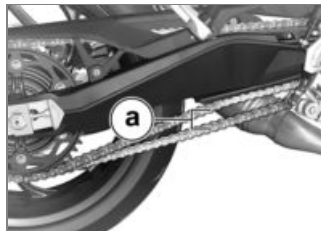
- Clean and lubricate the drive chain regularly.◀
- Lubricate drive chain at least every 620 mls (1000 km). Af-

ter driving through water or dust and dirt, carry out lubrication 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

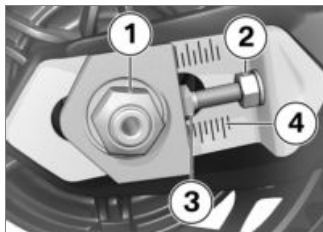
1.2...1.6 in (30...40 mm) (Motorcycle unloaded on side stand)

If the measured value is outside the approved tolerance:

- Adjust chain tension (116).

Adjust chain tension

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



- Loosen axle nut **1**.
- Loosen lock nuts **2** on left and right.
- Adjust chain tension with adjusting screws **3** on left and right.
- Check chain sag (115).
- Ensure that figures **4** indicating 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 axle nut **1** to specified torque.

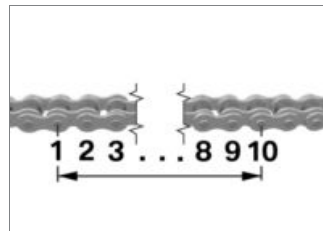


Rear-wheel quick-release axle in swinging arm

74 lb/ft (100 Nm)

Checking chain wear

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



Permissible chain length

max 5.7 in (max 144.30 mm)
(measured over the **center** of 10 rivets, chain under tension)

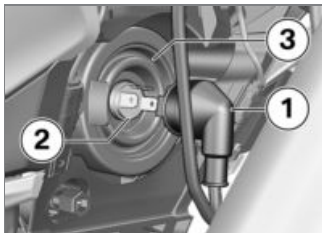
If the chain has reached the maximum approved length:

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

Light sources

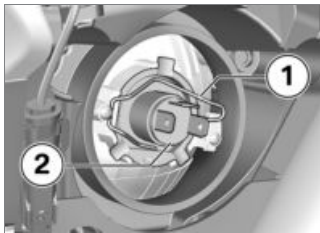
Replacing bulbs for low-beam and high-beam headlight

- Park motorcycle, ensuring that support surface is firm and level.
- Fold bulb mask downward (► 96).
- Switch off ignition.



- Pull off rubber cap with connector **1** while bracing the light source located under the rubber cap **2**.

- Remove cover **3**.



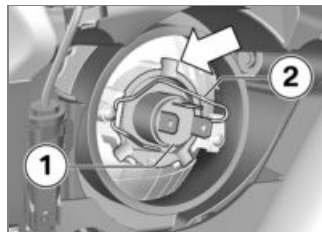
- Remove wire spring **1** from catch and fold to one side.
- Remove bulb **2**.
- Replace defective light source.



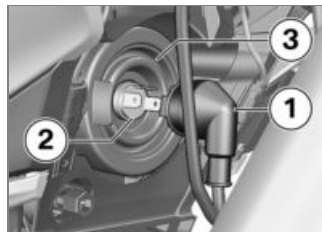
Bulb for low-beam and high-beam headlight

H4 / 12 V / 60/55 W

- To protect the glass against soiling, only grasp the light source by the base.



- Insert light source **1** while paying attention to the correct alignment of the lug (**arrow**).
- Close the spring clamp **2** and lock it in place.



- Install cover **3**.

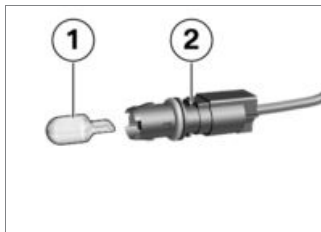
- Connect rubber cap with connector **1** to light source **2**.
- Mounting bulb mask (► 96).

Replacing bulb for parking light

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



- Turn connector **1** with light source **2** counterclockwise and pull out of headlight.



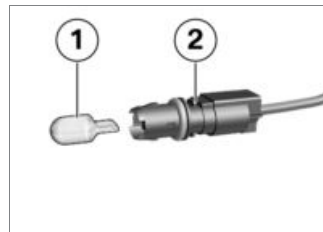
- Pull light source **1** out of socket **2**.
- Replace defective light source.



Bulb for parking light

W5W / 12 V / 5 W

- To prevent contaminants from being deposited on the glass surface, always use a clean, dry cloth to hold the light source.



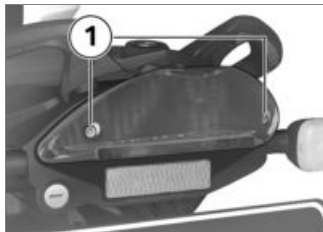
- Insert light source **1** into socket **2**.



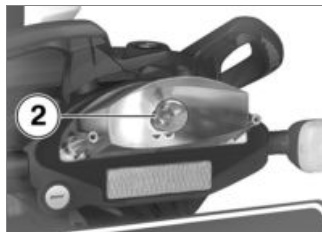
- Insert connector **1** in headlight and lock by turning clockwise.

Replacing bulb for brake and rear light

- Make sure ground is level and firm and park motorcycle.
- Switch off ignition.



- Remove screws **1**.
- Pull off lens toward rear.



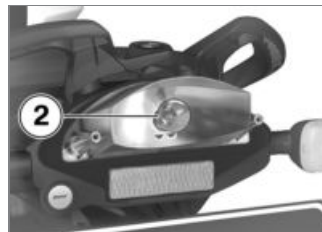
- Remove bulb **2** for brake and rear light.
- Replace defective bulb.



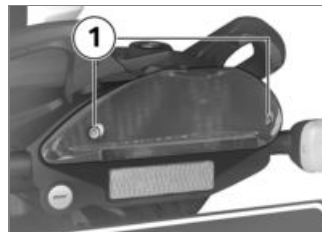
Bulb for taillight/brake light

P21/5W / 12 V / 5 W / 21 W

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



- Install bulb **2** for brake and rear light.



- Position lens and install screws **1**.

Replace LED tail light

– with rear LED light^{OE}

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 bulb for front and rear turn indicator

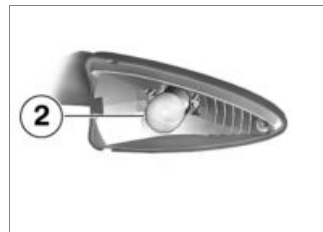
- Park motorcycle, ensuring that support surface is firm and level.
- Switch off ignition.



- Remove screw **1**.



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



- Remove bulb **2** from light housing by turning it counterclockwise.
- Replacing defective light source.



Bulbs for flashing turn indicators, front

RY10W / 12 V / 10 W

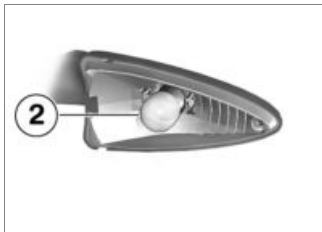


Bulbs for flashing turn indicators, rear

RY10W / 12 V / 10 W

- To prevent dirt from being deposited on the glass surface,

always use a clean, dry cloth to hold it.



- Install the light source **2** in the light housing by turning it clockwise.



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

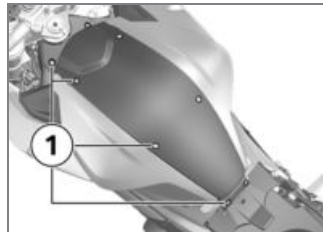


- Install screw **1**.

Fairings and panels

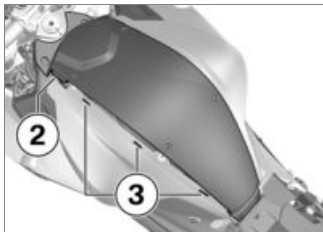
Removing center fairing panel

- Remove the seat (➡ 54).

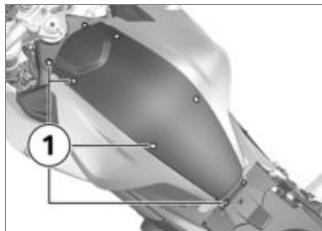


- Remove four screws **1** on left and right and take off center fairing panel.

Installing center fairing panel



- Slide center fairing panel at left and right under side panels at Position **2** and then insert in guides **3** on left and right.



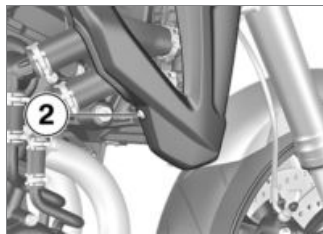
- Install four screws **1** on left and right.
- Install seat (➡ 54).

Removing right fairing side panel

- Removing center fairing panel (➡ 121).



- Remove circlip **1**.

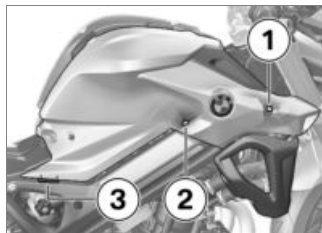


- Remove screw **2**.

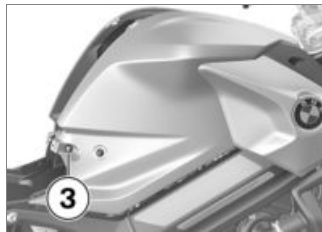
Installing right side panel



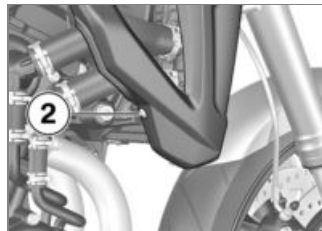
- Remove screw **3**.
- Slightly raise fairing side panel at rear and then remove to side.



- First position fairing side panel on retaining pin **1**, then insert in mounts **2** and **3**.



- Install screw **3**.



- Install screw **2**.



- Install circlip **1**.
- Installing center fairing panel (➡ 122).

Jump-starting



ATTENTION

Current too high when jump-starting the motorcycle

Cable fire or damage to the motorcycle 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. ◀

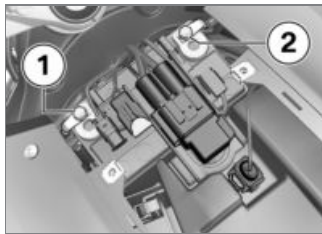


ATTENTION

Jump-starting with a voltage higher than 12 V

Damage to the motorcycle's electronics

- The battery of the donor motorcycle must have a voltage of 12 V. ◀
- Remove the seat (➡ 54).
- Removing center fairing panel (➡ 121).
- 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**).
- Run engine of donor motorcycle during jump-starting procedure.
- Start engine of motorcycle with discharged battery in usual way; if engine does not start, wait a few minutes before repeating attempt in order to protect starter motor and donor battery.
- Allow both engines to idle for a few minutes before disconnecting jumper cables.
- Disconnect jumper cables first from negative and then from positive terminal.



NOTICE

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

- Installing center fairing panel (122).
- Install seat (54).

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 dis-

connect 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 the battery connected to the vehicle using 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 vehicle electronics

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



ATTENTION

Charging a fully discharged battery via the power socket or additional onboard 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.◀

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.



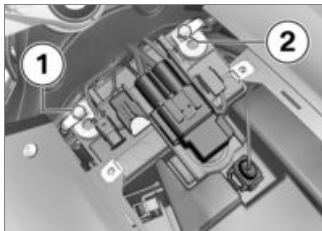
NOTICE

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

- Make sure ground is level and firm and park motorcycle.
- Remove the seat (➡ 54).
- Removing center fairing panel (➡ 121).
- 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.◀

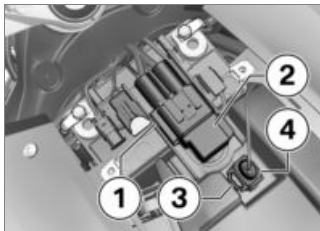


ATTENTION

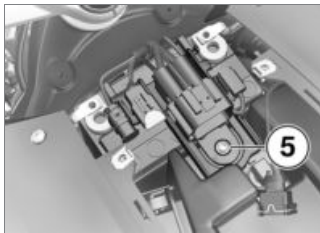
Incorrect battery disconnection

Danger of short circuit

- Follow the disconnection sequence. ◀
- Disconnect battery earth lead **1** first.
- Then disconnect the positive battery cable **2**.



- Press locking mechanism **3** and loosen connector **4**.
- Press locking mechanism **1** and remove relay **2**.



- Remove the screw **5**.



- Remove battery carrier **6** to the front.
- Lift out battery **7** upwards; if it is difficult to move, moving it back and forth will help.

Install battery

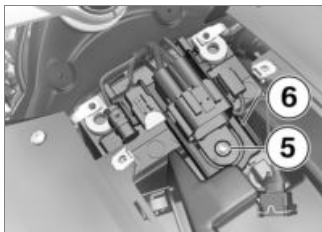


NOTICE

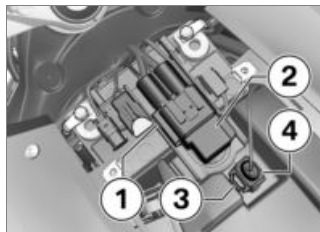
If the motorcycle was disconnected from the battery for a longer time, the current date must be entered in the instrument cluster to ensure the proper operation of the service display.

Consult a certified service facility, preferably an authorized BMW Motorrad retailer, for setting of the date.◀

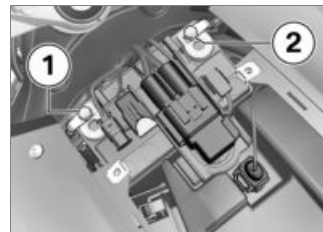
- Turn off ignition.
- Insert battery into battery compartment, with positive terminal on right in direction of travel.



- Slide battery carrier **6** over battery and install bolt **5**.



- Remove relay **2**.
 - » Locking mechanism **1** engages.
- Install connector **4**.
 - » Locking mechanism **3** engages.



ATTENTION

Incorrect battery connection

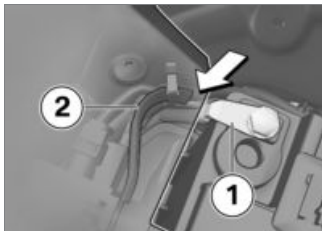
Danger of short circuit

- Follow the installation sequence.◀
- Install positive battery cable **2**.
- Install negative battery cable **1**.



Battery positive/grounding cable

4 lb/ft (5 Nm)



- Make sure that the battery earth lead **1** has sufficient distance (**arrow**) to the relay carrier **2**.
- Installing center fairing panel (➡ 122).
- Install seat (➡ 54).
- Set clock (➡ 48).

Fuses

Replacing main fuse

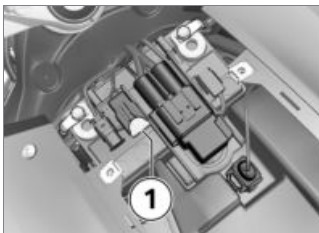


ATTENTION

Bypassing defective fuses

Risk of short circuit and fire

- Do not bypass defective fuses.
- Replace defective fuses with new fuses.◀
- Turn off ignition.
- Park motorcycle, ensuring that support surface is firm and level.
- Removing center fairing panel (➡ 121).



- Replace defective fuse **1**.



NOTICE

If the fuses blow frequently, have the electrical system checked by an authorized specialized work-

shop, preferably an authorized BMW Motorrad retailer.◀



Main fuse

30 A (Voltage regulator)

- Installing center fairing panel (➡ 122).

Diagnostic connector

Removing the diagnostic connector

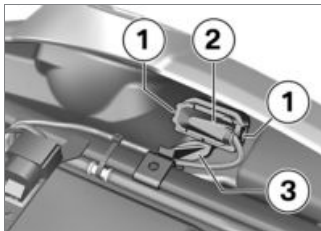


CAUTION

Incorrect procedure followed when disconnecting the data link connector for the On-Board Diagnostics.

Motorcycle experiences malfunctions

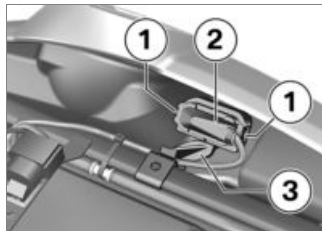
- Only have the data link connector disconnected by a specialist workshop or other authorized persons during your next BMW Service appointment.
- Have the work performed by appropriately trained staff.
- Refer to the vehicle manufacturer specifications. ◀
- Remove the seat (➡ 54).



- Press locks **1** on both sides.
- Unplug the diagnostic connector **2** from the bracket **3**. Counter-hold the bracket while doing so.
- » The diagnosis and information system interface can be connected at the diagnostic connector **2**.

Secure the data link connector

- Disconnect the diagnosis and information system interface.



- Plug diagnostic connector **2** into the bracket **3**. Counter-hold the bracket while doing so.
- » The locking mechanisms **1** engage on both sides.
- Install seat (➡ 54).

Accessories

General instructions.....	132
Power socket	132
Luggage	133
Sport Case	134
Touring Case	137
Topcase	140

General instructions



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. ◀

The safety, operation and suitability of the parts and accessory products have been checked extensively by BMW. Therefore, BMW assumes responsibility for these products. BMW shall not be liable for unapproved parts and accessory products of any kind.

Whenever you are planning modifications, comply with all the legal requirements. The motorcycle must not violate the regulations governing motorcycle approval for highway use applicable in your own country.

Your authorized BMW Motorrad retailer offers you qualified advice in choosing genuine BMW parts, accessories and other products. More information on the topic of accessories is available at:

bmw-motorrad.com/accessories

Power socket

- with power socket^{OE}

Connecting electrical devices

- The ignition must be switched on before electrical devices connected to the power socket can be operated.

Cable routing

Observe the following when routing cable from power sockets to additional devices:

- Cables must not hinder the rider's movement.
- Cables must not restrict the steering angle and driving characteristics.
- Cables must not become trapped.

Automatic deactivation

- The onboard socket is automatically switched off during starting.

- The socket is switched off approximately 15 minutes after the ignition is switched off to reduce the strain on the vehicle electrical system. Additional devices with low power consumption are possibly not detected by the vehicle electronics. In these cases, the onboard socket is switched off shortly after the ignition is switched off.
- In case of insufficient battery voltage, the onboard socket is switched off to maintain the starting capability of the vehicle.
- If the maximum loadability specified in the technical data is exceeded, the onboard socket is switched off.

Luggage

Lash down luggage

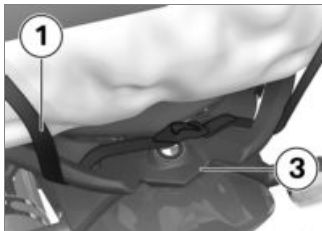
- Remove the seat (➡ 54).



- Pull luggage belt **1** through under seat in area **2** of fuel-tank fill location.



- Make sure that belt is **in front of** bars **1** on underside of seat.
- Install seat (➡ 54).
- Guide luggage belt along piece of luggage in area provided to rear.

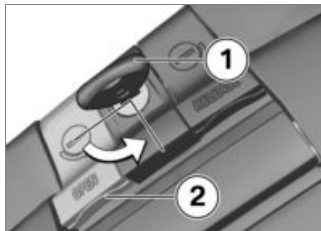


- Pull luggage belt **1** through grab handles **3** and lash down.
- Check piece of luggage for secure hold.

Sport Case

Open case

– with sport case^{OA}



- Turn key **1** to position OPEN.
- Pull gray release lever **2** (OPEN) upward and simultaneously open case lid.



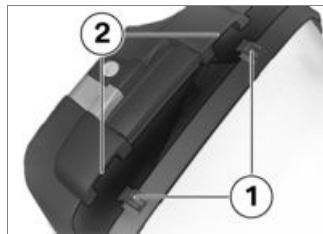
- Pull gray release lever **1** (OPEN) upward.

» Lock straps **2** open.

- Pull gray release lever (OPEN) upwards again while simultaneously pulling case lid **3** out of retainer.

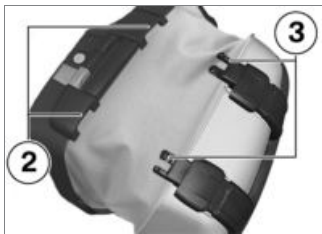
Close case

– with sport case^{OA}



- Turn key to OPEN position.
- Press catches **1** of case lid into retainers **2**. Ensure that no items are trapped between cover and case.
- Pull gray release lever (OPEN) upward and simultaneously close case lid.

- » The lid clicks audibly into place.
- Turn key in the case lock so that it is positioned in the direction of travel and remove.



- Also press locks **3** of lock straps into locking devices **2** until they engage.

Adjust case volume

– with sport case^{OA}

- Only close case lid.



- Press lock straps **1** outward and pull out upward.
- » The maximum volume has been set.

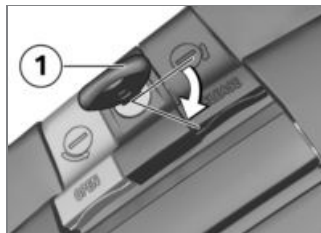


- Close lock straps.

- Press case lid against case body.
- » The case volume is adapted to the contents.

Remove case

– with sport case^{OA}



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

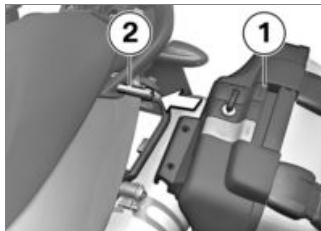


- Pull black release lever **1** (RELEASE) upward while simultaneously pulling the case outward.
- Then lift case out of lower mounting.

Mount case

– with sport case^{OA}

- Hook case into lower mounting.



- Pull black release lever **1** (RELEASE) upward while simultaneously pushing the case into upper mount **2**.
- Press black release lever down until it engages.
- Turn key in case lock in the direction of travel and remove.

Maximum payload and maximum speed

Observe maximum payload and maximum 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)

Secure hold

– with sport case^{OA}



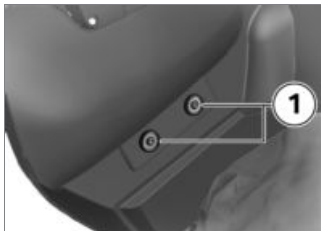
If a case wobbles or is difficult to fit, it must be adapted to the gap between the upper and lower mounting.

WARNING

Improperly installed case.

Impairment of riding safety.

- Cases may not shake and must be fastened play-free. If some play is determined after longer use, readjust the retaining claw. ◀

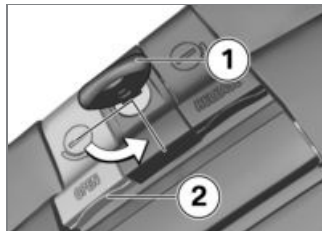


Use the screws **1** inside the case for this purpose.

Touring Case

Open case

– with touring case^{OA}



- Turn key **1** to position OPEN.
- Pull gray release lever **2** (OPEN) upward and simultaneously open case lid.

Closing case

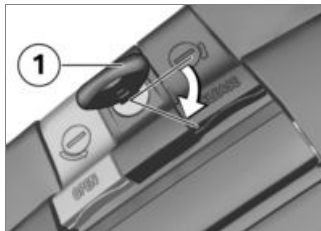
– with touring case^{OA}



- Turn key **1** to position OPEN.
- Press catches **2** of case lid into retainers **3**. Ensure that no items are trapped between cover and case.
- Pull gray release lever **4** (OPEN) upward and simultaneously close case lid.
» The lid clicks audibly into place.
- Turn key **1** in case lock in the direction of travel and remove.

Remove case

– with touring case^{OA}



- Turn key **1** to position RE-LEASE.

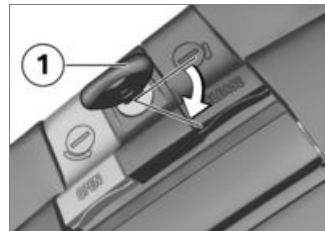


- Pull black release lever **1** (RE-LEASE) upward while simultaneously pulling the case outward.

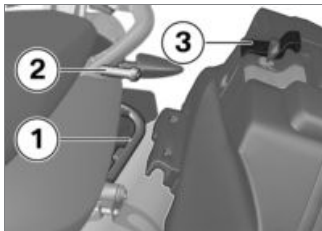
- Then lift case out of lower mounting.

Mount case

– with touring case^{OA}



- Turn key **1** to position RE-LEASE.



- Insert case in case carrier **1**, then swing as far as possible onto mount **2**.
- Pull black release lever **3** (RELEASE) upward while simultaneously pushing the case into upper mount **2**.
- Press black release lever **3** (RELEASE) down until it engages.
- Turn key in case lock in the direction of travel and remove.

Maximum payload and maximum speed

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

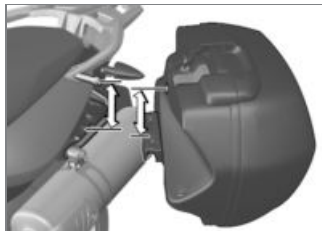
If you cannot find your combination of motorcycle and case on the label, contact your BMW Motorrad Retailer.

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)	

Secure hold

– with touring case^{OA}



If a case wobbles or is difficult to fit, it must be adapted to the gap between the upper and lower mounting.



WARNING

Improperly installed case.

Impairment of riding safety.

- Cases may not shake and must be fastened play-free. If some play is determined after longer use, readjust the retaining claw. ◀



Use the screws **1** inside the **case** for this purpose.

Topcase

Opening topcase

– with topcase^{OA}



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



- Press lock barrel **1** forward.
» Release lever **2** pops up.
- Pull release lever all the way up.

» Topcase lid opens.

Close topcase

– with topcase^{OA}



- Pull release lever **1** all the way up.
- Close topcase lid and hold it down. Ensure that no items are trapped between cover and case.



NOTICE

The topcase can also be locked if the lock is in the LOCK position. Under such circumstances,

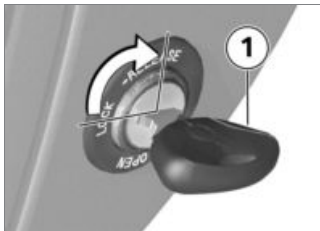
ensure that the ignition key is not in the topcase.◀



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

Remove topcase

– with topcase^{OA}



- Turn key **1** in the topcase lock to position RELEASE.
» Handle pops out.



- Fold handle **1** all the way up.
- Raise the rear of the topcase and pull it off luggage rack.

Mounting topcase

– with topcase^{OA}

- Fold up handle as far as possible.



- Hook topcase into luggage rack. Make sure that hooks **4** engage securely in their mounts **5**.



- Press handle **3** down until it engages.
- Turn key in topcase lock to the LOCK 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 sign, contact your authorized 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)

Care

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Washing your motorcycle	144
Cleaning sensitive motorcycle parts	145
Paint care	145
Paint preservation.....	146
Store motorcycle	146
Return motorcycle to use	146

Care products

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



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.

In particular during the winter months, wash the motorcycle more frequently.

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



ATTENTION

Increased effect of salt caused by warm water

Corrosion

- Only use cold water to remove road salt. ◀



WARNING

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

Poorer braking action, accident hazard

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



ATTENTION

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

Corrosion or short circuit, damage to labels, 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 fairings and panels with water and BMW plastic cleaner.

Windshields and lenses are manufactured in 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

Clean chrome sections carefully with plenty of water and a solvent cleaner from the BMW Motorrad Care Products range. This is required in particular for removing road salt. Use chrome polish for additional treatment.

Radiator

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



ATTENTION

Bending of radiator fins

Damage to radiator fins

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

Rubber parts

Treat rubber parts 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 motorcycle regularly will help counteract the long-term effects of substances that damage the paint, especially if your

motorcycle is ridden in areas with high air pollution or natural sources of dirt, e.g. tree resin or pollen.

At the same time, you should remove particularly aggressive materials immediately; otherwise changes in the paint and discoloration can occur. These include spilled fuel, oil, grease and brake fluid as well as bird droppings. We recommend you use BMW Motorrad gloss polish or BMW paint cleaner.

Contamination on the paint finish is particularly easy to see after the motorcycle has been washed. Remove this type of soiling with cleaning naphtha or spirit on a clean cloth or cotton ball. BMW Motorrad recommends using BMW tar remover for removing tar spots. Then add a protective wax coating to the paint at these locations.

Paint preservation

BMW Motorrad recommends applying BMW car wax or products containing carnauba wax or synthetic wax to preserve your paintwork.

When water fails to form beads on the paint surface this indicates it is time to apply wax.

Store motorcycle

- Clean motorcycle.
- Completely fill the motorcycle's fuel tank.
- Removing battery (🔧 126).
- 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).

Return motorcycle to use

- Remove the protective wax coating.
- Clean motorcycle.
- Install battery (🔧 127).
- Observe checklist (🔧 76).

Technical data

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Engine	152
Clutch	153
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Frame	154
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------------------------	-----

Troubleshooting chart

Engine does not start.

Possible cause	Remedy
Side stand extended and gear engaged	Engage neutral or fold in side stand.
Gear engaged and clutch not operated	Place transmission in neutral or disengage clutch.
No fuel in tank	Refueling procedure (▮▮▮▮ 84).
Battery drained	Charging connected battery (▮▮▮▮ 125).
Overheating protection for starter motor has activated. Starter motor can only be actuated for a limited period.	Leave the starter motor to cool down for around 1 minute until it becomes available again.

Threaded fasteners

Front wheel	Value	Valid
Brake caliper on telescopic forks		
M10 x 65	28 lb/ft (38 Nm)	
Pinch bolt on quick-release axle		
M8 x 35	Tighten the screws 6 times, alternating between one and the other each time	
	14 lb/ft (19 Nm)	
Screw in front wheel quick-release axle		
M20 x 1.5	37 lb/ft (50 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)	

Mirrors**Value****Valid****Locknut (mirror) on clamping piece**M14 x 1
Multi-Wax Spray

15 lb/ft (20 Nm)

Headlight**Value****Valid****Headlight on front panel carrier**

M6 x 20

4 lb/ft (5 Nm)

Fuel

Fuel	
Recommended fuel quality	Super unleaded 89 AKI (95 ROZ/RON) 89 AKI
Usable fuel quantity	Approx. 4 gal (Approx. 15 l)
Fuel reserve	Approx. 3.2 quarts (Approx. 3 l)

Engine oil

Engine oil, capacity	Approx. 3.1 quarts (Approx. 2.9 l), with filter replacement
Specification	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.

BMW recommends **ADVANTEC**
ORIGINAL BMW ENGINE OIL

Engine

Engine number location	On crankcase at lower right
Engine design	Water-cooled 2-cylinder four-stroke engine with four valves (operated via rocker arms) per cylinder, two overhead camshafts 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	90 hp (66 kW), at engine speed: 8000 min ⁻¹
– with regular-grade gasoline, unleaded ^{OE}	87 hp (64 kW), at engine speed: 8000 min ⁻¹
– with reduction of power to 35 kW ^{OE}	48 hp (35 kW), at engine speed: 6750 min ⁻¹
Torque	63 lb/ft (86 Nm), at engine speed: 5800 min ⁻¹
– with regular-grade gasoline, unleaded ^{OE}	60 lb/ft (82 Nm), at engine speed: 5800 min ⁻¹
– with reduction of power to 35 kW ^{OE}	51 lb/ft (69 Nm), at engine speed: 3500 min ⁻¹
Maximum engine speed	max 9000 min ⁻¹
Idle speed	1250 ⁺⁵⁰ min ⁻¹ , with engine at operating temperature

Clutch

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

Transmission

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

Rear-wheel drive

Type of final drive	Chain drive
Number of teeth of rear-wheel drive (Pinion/sprocket)	19/47

Frame

Frame design	Aluminum composite bridge frame, integrated engine
Location of type plate	Frame at front right on steering head
Location of the vehicle identification number	Frame at front right on steering head

Suspension

Front wheel

Type of front suspension	Upside-down telescopic forks
Spring travel, front	4.9 in (125 mm), on wheel

Rear wheel

Type of rear suspension	Two-arm aluminum swinging arm
Type of rear suspension	Directly articulated central spring strut with adjustable spring preload/rebound-stage damping
Spring travel at rear wheel	4.9 in (125 mm)

Brakes

Front wheel

Type of front brake	Hydraulically operated twin disk brake with 4-piston radial calipers and floating brake disks
Front brake pad material	Sintered metal

Rear wheel

Type of rear brake	Hydraulically operated disk brake with 1-piston floating caliper and fixed brake disk
Rear brake pad material	Organic

Wheels and tires

Speed category of front/rear tires	W, minimum requirement: 168 mph (270 km/h)
– with reduction of power to 35 kW ^{OE}	S, minimum requirement: 112 mph (180 km/h)

Front wheel

Front wheel design	Aluminum cast wheel
Front-wheel rim size	3.50" x 17"
Front tire designation	120/70 ZR 17
Permissible front-wheel imbalance	max 0.2 oz (max 5 g)
Load index for front tire	At least 45

Rear wheel

Rear wheel design	Aluminum cast wheel
Rear-wheel rim size	5.5" x 17"
Rear tire designation	180/55 ZR 17
Permissible rear-wheel imbalance	max 1.6 oz (max 45 g)
Load index for rear tire	At least 64

Tire inflation pressures

Tire pressure, front	36.3 psi (2.5 bar), with tire cold
Tire pressure, rear	42.1 psi (2.9 bar), with tire cold

Electrical system

Main fuse	30 A, Voltage regulator
Fuses	The 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.
Electrical rating of onboard socket	
– with power socket ^{OE}	5 A

Battery

Battery design	AGM battery (Absorbent Glass Mat)
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...0.04 in (0.9...1.0 mm)

Light sources

Bulb for low-beam and high-beam headlight	H4 / 12 V / 60/55 W
Bulb for parking light	W5W / 12 V / 5 W
Bulb for taillight/brake light	P21/5W / 12 V / 5 W / 21 W
Bulbs for flashing turn indicators, front	RY10W / 12 V / 10 W
Bulbs for flashing turn indicators, rear	RY10W / 12 V / 10 W

Dimensions

Motorcycle length	84.4 in (2145 mm), over rear wheel
Motorcycle height	48.6 in (1235 mm), incl. windshield, without driver, with DIN unladen weight
Motorcycle width	33.9 in (860 mm), with mirrors
Rider's seat height	31.1 in (790 mm), without rider at unladen weight
– with seat low ^{OE}	30.3 in (770 mm), without rider at unladen weight
– with comfort seat ^{OE}	32.3 in (820 mm), without rider at unladen weight
Rider's inside-leg arc, heel to heel	70.1 in (1780 mm), without rider at unladen weight
– with seat low ^{OE}	68.5 in (1740 mm), without rider at unladen weight
– with comfort seat ^{OE}	72.2 in (1835 mm), without rider at unladen weight

Weights

Vehicle curb weight	448 lbs (203 kg), DIN unladen weight, ready for road, 90 % full tank of gas, without optional equipment
Permissible gross weight	893 lbs (405 kg)
Maximum payload	445 lbs (202 kg)

Performance data

Top speed	>124 mph (>200 km/h)
– with reduction of power to 35 kW ^{OE}	106 mph (171 km/h)

Service

Reporting safety defects	162
BMW Motorrad Service	163
BMW Motorrad Mobility Services	163
Maintenance procedures	163
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Confirmation of maintenance work	168
Confirmation of service	182

Reporting safety defects

If you think that your motorcycle has a fault which may cause an accident, injury or death, you must inform the NHTSA (National Highway Traffic Safety Administration) immediately and BMW of North America, LLC.

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

You can contact the NHTSA by calling the Vehicle Safety Hotline on 1-888-327-4236 (Teletypewriter TTY for the hearing impaired: 1-800-424-9153) for free, by visiting the website at <http://www.safercar.gov> or by writing to Administrator, NHTSA, 400 Seventh Street, SW., Washington, DC 20590. Further information on vehicle safety is available at <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 will find the nearest authorized BMW Motorrad retailer to you at our website:

bmw-motorrad.com



WARNING

Improperly performed maintenance and repair work

Accident hazard caused by subsequent damage

- BMW Motorrad recommends having corresponding work on the motorcycle carried out

by a specialized workshop, preferably by an authorized BMW Motorrad retailer. ◀

To ensure that your BMW consistently remains in optimum 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. Documentation confirming regular maintenance is essential for generous treatment of claims submitted after the warranty period has expired (goodwill).

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 vehicle 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.

More information on the topic of service is available at:

bmw-motorrad.com/service

The service display in the multi-function display reminds you of the next service date approx. one month or 620 miles (1000 km) before the entered values.

[illegible]

Maintenance schedule

- 1** BMW running-in check
- 2** BMW Service Standard
Scope
- 3** Engine oil change with filter
- 4** Check valve clearance
- 5** Replace all spark plugs
- 6** Replacing air cleaner insert
- 7** Telescopic fork oil change
- 8** Change brake fluid in entire system
 - ^a annually or every
6000 miles (10000 km)
(whichever comes first)
 - ^b for the first time after one
year, then every two years

Confirmation of maintenance work

BMW Service standard scope

The activities of the BMW Service standard scope are listed in the following. The actual scope of maintenance work applicable for your vehicle may differ.

- Performing the vehicle test using the BMW Motorrad diagnosis system
- Checking coolant level
- Checking/adjusting clutch play
- Checking front brake pads and brake disks for wear
- Checking front brake fluid level
- Checking rear brake pads and brake disk for wear
- Checking rear brake fluid level
- Visually inspect the brake lines, brake hoses and connections
- Checking tire pressure and tread depth
- Checking and lubricating the chain drive
- Checking side stand for ease of movement
- Checking steering-head bearing
- Checking the lighting and signal system
- Functional check for engine starting suppression
- Final inspection and check for road safety
- Set the service due date and remaining distance before next service
- Checking charging state of battery
- Confirm the BMW service in the vehicle literature

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_____

Work carried out

BMW Service standard scope

Yes

No

☐☐

Engine oil change with filter

☐☐

Checking valve clearance

☐☐

Replacing all spark plugs

☐☐

Replacing air cleaner element

☐☐

Oil change - telescopic fork

☐☐

Changing brake fluid in entire system

☐☐

Information

Stamp, Signature

BMW Service

Conducted

on _____

Odometer reading _____

Next service

at the latest

on _____

or, if reached sooner

Odometer reading _____

Work carried out

BMW Service standard scope

Yes

No

☐☐

Engine oil change with filter

☐☐

Checking valve clearance

☐☐

Replacing all spark plugs

☐☐

Replacing air cleaner element

☐☐

Oil change - telescopic fork

☐☐

Changing brake fluid in entire system

☐☐

Information

Stamp, Signature

BMW Service

Conducted

on_____

Odometer reading_____

Next service

at the latest

on_____

or, if reached sooner

Odometer reading_____

Work carried out

BMW Service standard scope

Yes

No

☐☐

Engine oil change with filter

☐☐

Checking valve clearance

☐☐

Replacing all spark plugs

☐☐

Replacing air cleaner element

☐☐

Oil change - telescopic fork

☐☐

Changing brake fluid in entire system

☐☐

Information

Stamp, Signature

BMW Service

Conducted

on _____

Odometer reading _____

Next service

at the latest

on _____

or, if reached sooner

Odometer reading _____

Work carried out

BMW Service standard scope

Yes

No

☐
☐

Engine oil change with filter

☐
☐

Checking valve clearance

☐
☐

Replacing all spark plugs

☐
☐

Replacing air cleaner element

☐
☐

Oil change - telescopic fork

☐
☐

Changing brake fluid in entire system

☐
☐

Information

Stamp, Signature

BMW Service

Conducted

on_____

Odometer reading_____

Next service

at the latest

on_____

or, if reached sooner

Odometer reading_____

Work carried out

BMW Service standard scope

Yes

No

☐☐

Engine oil change with filter

☐☐

Checking valve clearance

☐☐

Replacing all spark plugs

☐☐

Replacing air cleaner element

☐☐

Oil change - telescopic fork

☐☐

Changing brake fluid in entire system

☐☐

Information

Stamp, Signature

BMW Service

Conducted

on _____

Odometer reading _____

Next service

at the latest

on _____

or, if reached sooner

Odometer reading _____

Work carried out

BMW Service standard scope

Yes

No

☐☐

Engine oil change with filter

☐☐

Checking valve clearance

☐☐

Replacing all spark plugs

☐☐

Replacing air cleaner element

☐☐

Oil change - telescopic fork

☐☐

Changing brake fluid in entire system

☐☐

Information

Stamp, Signature

BMW Service

Conducted

on_____

Odometer reading_____

Next service

at the latest

on_____

or, if reached sooner

Odometer reading_____

Work carried out

BMW Service standard scope

Yes

No

☐☐

Engine oil change with filter

☐☐

Checking valve clearance

☐☐

Replacing all spark plugs

☐☐

Replacing air cleaner element

☐☐

Oil change - telescopic fork

☐☐

Changing brake fluid in entire system

☐☐

Information

Stamp, Signature

BMW Service

Conducted

on _____

Odometer reading _____

Next service

at the latest

on _____

or, if reached sooner

Odometer reading _____

Work carried out

BMW Service standard scope

Yes

No

☐☐

Engine oil change with filter

☐☐

Checking valve clearance

☐☐

Replacing all spark plugs

☐☐

Replacing air cleaner element

☐☐

Oil change - telescopic fork

☐☐

Changing brake fluid in entire system

☐☐

Information

Stamp, Signature

BMW Service

Conducted

on_____

Odometer reading_____

Next service

at the latest

on_____

or, if reached sooner

Odometer reading_____

Stamp, Signature

Work carried out

BMW Service standard scope

Yes

No

☐☐

Engine oil change with filter

☐☐

Checking valve clearance

☐☐

Replacing all spark plugs

☐☐

Replacing air cleaner element

☐☐

Oil change - telescopic fork

☐☐

Changing brake fluid in entire system

☐☐

Information

BMW Service

Conducted

on _____

Odometer reading _____

Next service

at the latest

on _____

or, if reached sooner

Odometer reading _____

Work carried out

BMW Service standard scope

Yes

No

☐☐

Engine oil change with filter

☐☐

Checking valve clearance

☐☐

Replacing all spark plugs

☐☐

Replacing air cleaner element

☐☐

Oil change - telescopic fork

☐☐

Changing brake fluid in entire system

☐☐

Information

Stamp, Signature

BMW Service

Conducted

on_____

Odometer reading_____

Next service

at the latest

on_____

or, if reached sooner

Odometer reading_____

Work carried out

BMW Service standard scope

Yes

No

☐☐

Engine oil change with filter

☐☐

Checking valve clearance

☐☐

Replacing all spark plugs

☐☐

Replacing air cleaner element

☐☐

Oil change - telescopic fork

☐☐

Changing brake fluid in entire system

☐☐

Information

Stamp, Signature

BMW Service

Conducted

on _____

Odometer reading _____

Next service

at the latest

on _____

or, if reached sooner

Odometer reading _____

Work carried out

BMW Service standard scope

Yes

No

☐☐

Engine oil change with filter

☐☐

Checking valve clearance

☐☐

Replacing all spark plugs

☐☐

Replacing air cleaner element

☐☐

Oil change - telescopic fork

☐☐

Changing brake fluid in entire system

☐☐

Information

Stamp, Signature

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

[illegible]

Work carried out	Odometer reading	Date

Appendix

Certificate for Electronic Immobilizer	186
Certificate for Tire Pressure Control	188

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
IC: 2546A-BC54MA4

FCC ID: MRXBC5A4
IC: 2546A-BC5A4

This device complies with Part 15 of the FCC Rules and with Industry Canada license-exempt RSS standard(s).

Operation is subject to the following two conditions:

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

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

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

WARNING: Changes or modifications not expressly 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.

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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.

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Fuel	
Recommended fuel quality	Super unleaded 89 AKI (95 ROZ/RON) 89 AKI
Usable fuel quantity	Approx. 4 gal (Approx. 15 l)
Fuel reserve	Approx. 3.2 quarts (Approx. 3 l)
Tire inflation pressures	
Tire pressure, front	36.3 psi (2.5 bar), with tire cold
Tire pressure, rear	42.1 psi (2.9 bar), with tire cold

BMW recommends ADVANTEC
ORIGINAL BMW ENGINE OIL

