

BMW Motorrad



The Ultimate
Riding Machine

Rider's Manual (US Model)

F 800 GT

Motorcycle/Retailer Data

Motorcycle Data

Model

Vehicle identification number

Color number

Initial registration

License plate

Retailer Data

Contact in Service

Ms./Mr.

Phone number

Retailer's address/phone number (company stamp)

Welcome to BMW

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

About this Rider's Manual

Please read this Rider's Manual carefully before starting to use your new BMW. It contains important information on how to operate the controls and how to get the most benefit from your BMW's advanced technical features.

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

Suggestions and complaints

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

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

BMW Motorrad.

01 41 8 559 407



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General instructions

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Overview

We have placed great importance on good orientation when using this Rider's Manual. You'll find special topics most quickly by using the extensive index at the end of the manual. Chapter 2 provides you with an overview of your motorcycle. All maintenance and repair work carried out on your vehicle will be documented in Chapter 11. Proof of the maintenance work performed is a prerequisite for generous treatment of claims.

When the time comes to sell your BMW, remember to hand over this Rider's Manual; it is an important part of the motorcycle.

Abbreviations and symbols



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



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



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



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



NOTICE Special information on operating and inspecting your motorcycle as well

as maintenance and adjustment procedures.



Indicates the end of an item of information.



Instruction.



Result of an activity.



Reference to a page with more detailed information.



Indicates the end of accessory or equipment-dependent information.



Tightening torque.



Technical data.

OE	Optional extra. BMW Motorrad optional extras are already completely installed during motorcycle production.
OA	Optional accessory. BMW Motorrad optional accessories can be purchased and installed at your authorized BMW Motorrad retailer.
EWS	Electronic immobilizer.
DWA	Anti-theft alarm.
ABS	Anti-Lock Brake System.
ASC	Automatic Stability Control.
ESA	Electronic Suspension Adjustment.

TPC Tire Pressure Control (TPC).

Equipment

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

If your 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.

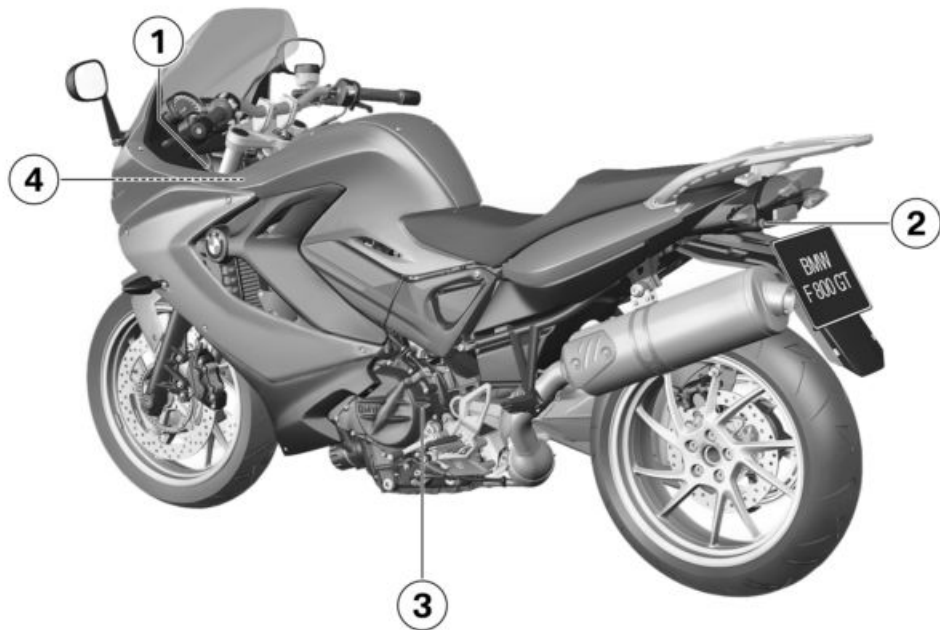
Notice concerning current status

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.

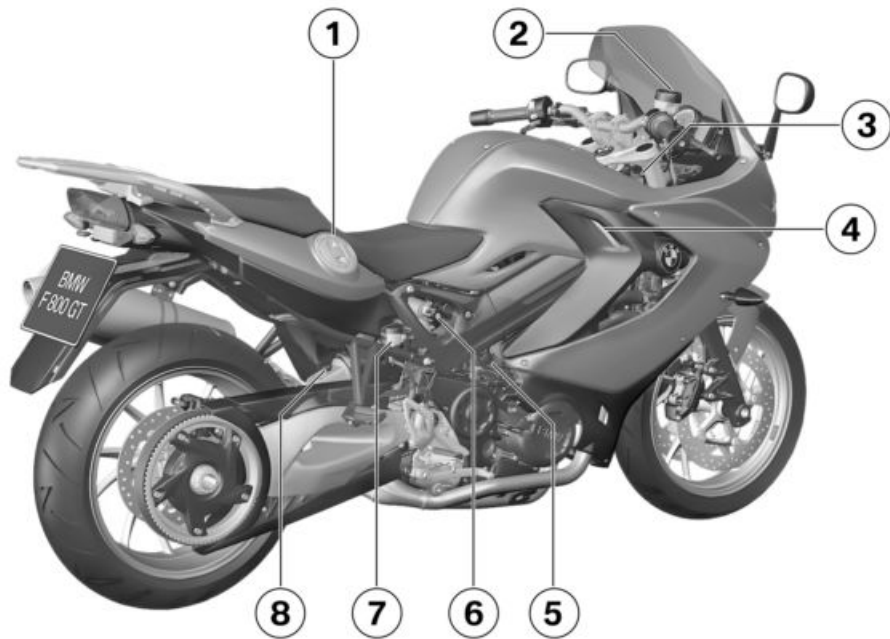
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General view, left side

- 1** Headlamp range adjustment (below instrument cluster) (▣▣▣▣➡ 53)
- 2** Seat lock (▣▣▣▣➡ 54)
- 3** Oil fill location and oil dipstick (▣▣▣▣➡ 89)
- 4** Payload table (on steering-head bearing at left)

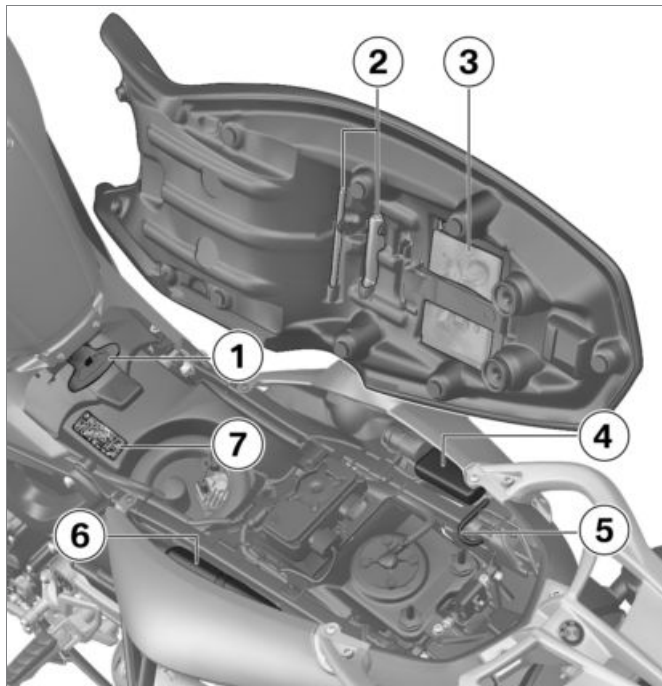


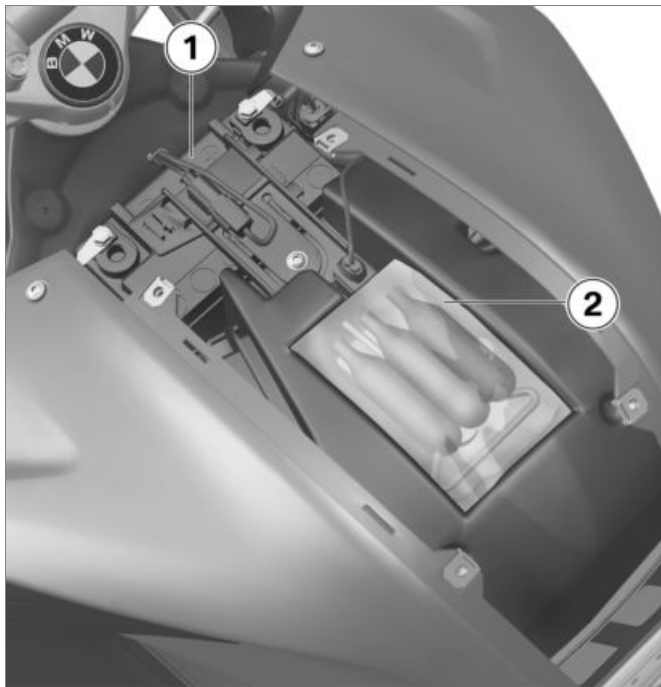
General view, right side

- 1** Fuel filler cap (➡ 77)
- 2** Brake-fluid reservoir, front (➡ 92)
- 3** Vehicle identification number, type plate (on steering-head bearing)
- 4** Coolant level indicator (behind side fairing) (➡ 94)
- 5** Onboard power socket (➡ 118)
- 6** Adjusting spring preload (➡ 49)
- 7** Brake-fluid reservoir, rear (➡ 93)
- 8** Damping adjustment (➡ 50)

Underneath seat

- 1 Tools for adjusting spring preload (► 49)
- 2 Standard tool kit (► 88)
- 3 Rider's Manual (US Model)
- 4 Storage
– with first-aid kit^{OA}
Storing first-aid kit
- 5 Helmet holder (► 54)
- 6 Storage
– with service toolkit^{OA}
Storing service tool kit (► 88)
- 7 Tire inflation pressure table



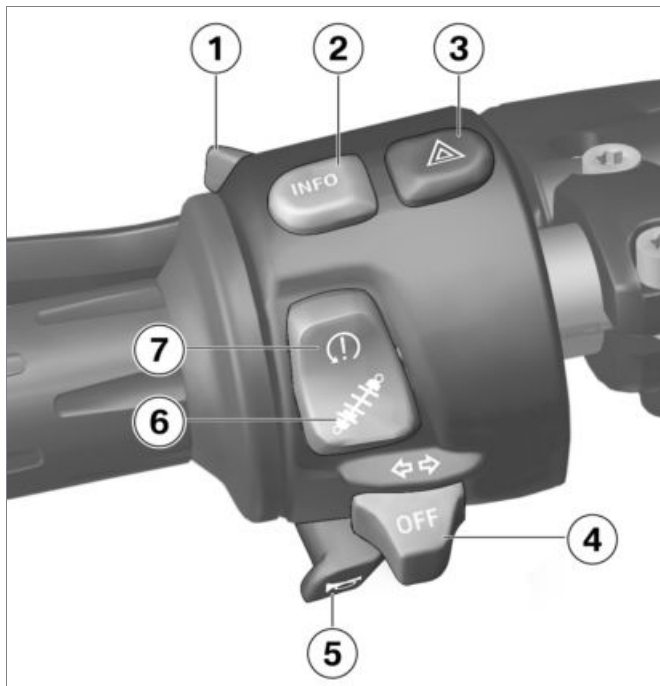


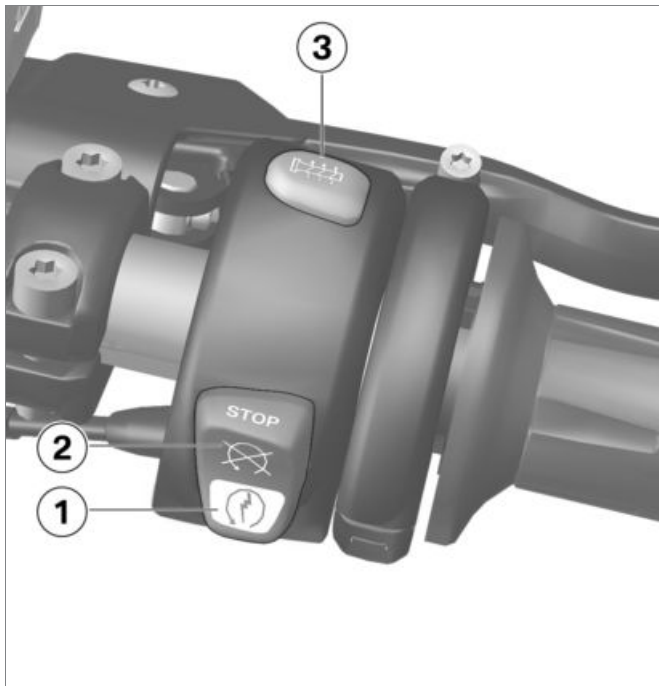
Under center fairing panel

- 1** Battery (➡ 112)
- 2** Storage space
 - with tire repair kit^{OA}
 - Storing tire repair kit

Multifunction switch, left

- 1 High-beam headlight and headlight flasher (➡ 44)
- 2 Switching the indicators in the display (➡ 40)
- 3 Hazard warning flashers (➡ 45)
- 4 Turn indicators (➡ 44)
- 5 Horn
- 6 Not included in standard equipment
 - with Electronic Suspension Adjustment (ESA)^{OE}
 ESA (➡ 51)
- 7 Not included in standard equipment
 - with Automatic Stability Control (ASC)^{OE}
 ASC (➡ 47)



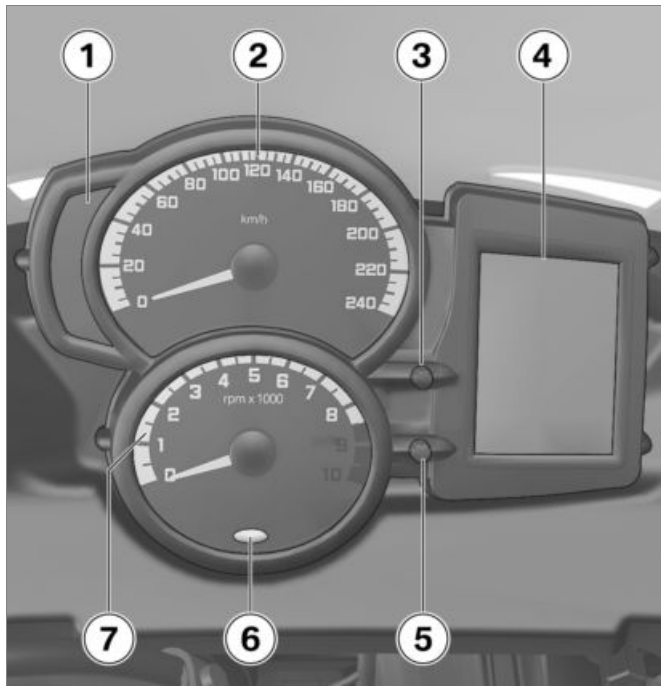


Multifunction switch, right

- 1** Starter (➡ 70)
- 2** Emergency on/off switch (kill switch) (➡ 45)
- 3** Not included in standard equipment
 - with heated handlebar grips^{OE}
 Operate heated grips (➡ 46).

Instrument cluster

- 1 Warning and indicator lamps (►► 20)
 - 2 Speedometer
 - 3 Function key
 - 4 Multifunction display (►► 21)
 - 5 Function key
 - 6 Photosensor (for instrument lighting control)
– with anti-theft alarm system (DWA)^{OE}
Alarm system LED (see operating instructions)
– with onboard computer^{OE}
 - 7 Engine speed warning (►► 74)
- Tachometer

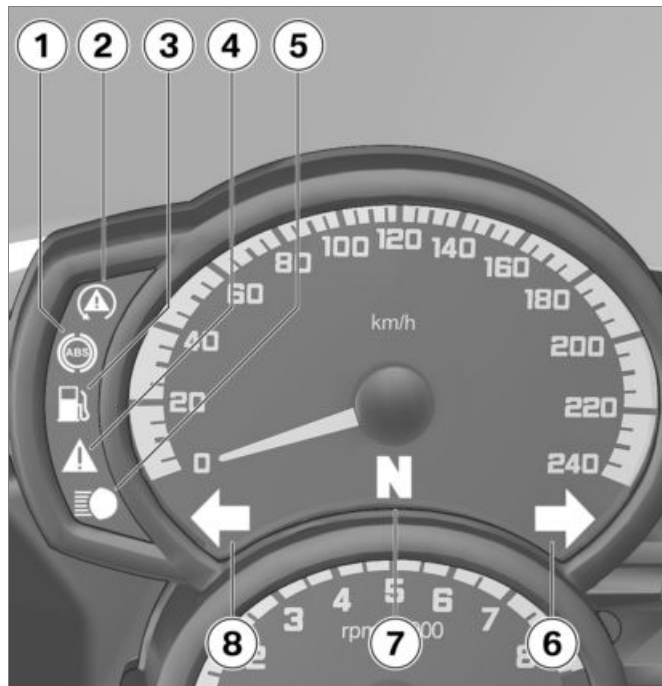


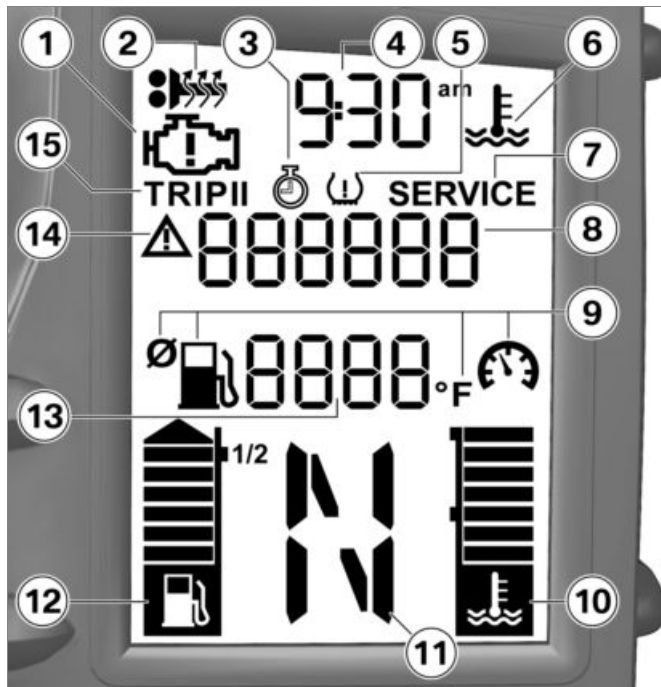
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Warning and indicator lamps

- 1 ABS (▮▮▮ 31)
- 2 Not included in standard equipment
– with Automatic Stability Control (ASC)^{OE}
ASC (▮▮▮ 31)
- 3 Fuel reserve (▮▮▮ 33)
(▮▮▮ 30)
- 4 Universal warning lamp
(appears together with warnings in display panel)
(▮▮▮ 22)
- 5 High-beam headlight
- 6 Turn indicator, right
- 7 Idle
- 8 Turn indicator, left





Multifunction display

- 1 Warning for electronic engine management (▮▮▮ 27)
- 2 Not included in standard equipment
– with heated handlebar grips^{OE}
Display of the selected heated grip level (▮▮▮ 46)
- 3 Not included in standard equipment
– with onboard computer^{OE}
Stopwatch (▮▮▮ 42)
- 4 Time (▮▮▮ 40)
- 5 Not included in standard equipment
– with Tire Pressure Control (TPC/RDC)^{OE}
Tire inflation pressure (▮▮▮ 34)
- 6 Coolant-temperature warning indicator (▮▮▮ 26)
- 7 Overdue service (▮▮▮ 33)

- 8** Value area for indicators (▮▮▮▮ 40)
- 9** Not included in standard equipment
 - with onboard computer^{OE}
 Symbols explaining the indicated value (▮▮▮▮ 32)
- 10** Coolant temperature display
- 11** Not included in standard equipment
 - with onboard computer^{OE}
 Gear indicator, "N" is shown for Neutral
- 12** Fuel level (▮▮▮▮ 32)
- 13** Not included in standard equipment
 - with onboard computer^{OE}
 Value area for indicator (▮▮▮▮ 40)
- 14** Warning (▮▮▮▮ 22)
- 15** Trip odometer (▮▮▮▮ 40)

Warning lights

Display

Warnings are displayed with the corresponding warning lamps.



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



























Next to value area **2**, warning triangle **3** can be indicated in addition. These warnings alternate with the odometers (▮▮▮▮ 40).

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

The following page contains a list of potential warnings.

Overview of warning indicators

Warning and indicator lamps	Warning symbols in the display panel	Meaning
	"x . x ° F" flashes	Outside temperature warning (➡ 26)
 lights up yellow	 + "EWS" is indicated	Electronic immobilizer is active (➡ 26)
 lights up red	 flashes	Coolant temperature too high (➡ 26)
 lights up yellow	 appears on the display	Engine in emergency-operation mode (➡ 27)
 lights up yellow	 + "LAMP" is indicated	Bulb defective (➡ 27)
 lights up yellow	 + "DWA" is indicated	DWA battery drained (➡ 28)
 lights up yellow	 + "x . x" flashes	Tire inflation pressure in limit area of permissible tolerance (➡ 28)
 flashes red	 + "x . x" flashes	Tire inflation pressure is outside approved range (➡ 28)

Warning and indicator lamps	Warning symbols in the display panel	Meaning
 lights up yellow	 + "--" or "-- --" is indicated	Sensor defective or system fault (➡ 29)
 lights up yellow	 + "RdC" is indicated.	Battery of tire-inflation pressure sensor weak (➡ 29)
	 + "--" or "-- --" is indicated	Transmission error (➡ 30)
 lights up		Fuel down to reserve (➡ 30)
 flashes		ABS self-diagnosis not completed (➡ 31)
 lights up		ABS error (➡ 31)
 flashes rapidly		ASC intervention (➡ 31)
 flashes slowly		ASC self-diagnosis not completed (➡ 31)

Warning and indicator lamps

Warning symbols in the display panel

Meaning



lights up

ASC switched off (→ 32)



lights up

ASC error (→ 32)

Outside temperature warning

– with onboard computer^{OE}

"x . x ° F" flashes.

Possible cause:

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



WARNING

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

Risk of accident due to black ice.

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

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.

Coolant temperature too high



General warning light shows red.



Temperature symbol flashes.



ATTENTION

Riding with overheated engine.

Engine damage

- Be sure to observe the measures listed below. ◀

Possible cause:

Coolant level is too low.

- Check coolant level (→ 94).

If coolant level is too low:

- Have the coolant level refilled and the coolant system checked at a specialist service facility, preferably an authorized BMW Motorrad retailer.

Possible cause:

The coolant temperature is too high.

- If possible, continue driving in the part-load range to cool down the engine.
- Should the coolant temperature frequently be too high, have the coolant system checked as quickly as possible by a specialist service facility, preferably an authorized BMW Motorrad retailer.

Engine in emergency-operation mode



General warning light shows yellow.



Engine symbol appears on the display.



WARNING

Unusual handling when engine is no emergency operating mode.

Accident hazard

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

Possible cause:

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

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

Bulb defective



General warning light shows yellow.



+ "LAMP" is indicated.



WARNING

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

Safety risk

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

Possible cause:

Bulb defective.

- Locate defective bulb with visual check.
- Replacing low-beam and/or high-beam bulb (▮▮▮▮ 105).
- Replacing bulb for parking light (▮▮▮▮ 106).
- Replacing brake light and tail light bulbs (▮▮▮▮ 108).

- Remove front and rear turn signal bulb (➡ 109).

DWA battery drained

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



General warning light shows yellow.



+ "DWA" is indicated.



NOTICE

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

Possible cause:

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

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

Tire inflation pressure in limit area of permissible tolerance

- with Tire Pressure Control (TPC/RDC)^{OE}



General warning light shows yellow.



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

Possible cause:

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

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



NOTICE

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

Tire inflation pressure is outside approved range

- with Tire Pressure Control (TPC/RDC)^{OE}



General warning light flashes red.



+ "x . x" (the critical inflation 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 permissible tolerance.

- Check tire for damage and drivability.

If it is still possible to drive with tire:

- Correct tire inflation pressure at next opportunity.
- Have the tire checked for damage by a specialist service facility, preferably an authorized BMW Motorrad retailer.

If you are unsure about the drivability of the tire:

- Do not continue driving.
- Inform roadside service.
- Have the tire checked for damage by a specialist service facility, preferably an authorized BMW Motorrad retailer.

Sensor defective or system fault

– with Tire Pressure Control (TPC/RDC)^{OE}



General warning light shows yellow.



+ "--" or "--- --" is indicated.

Possible cause:

Wheels without RDC sensors are mounted.

- Retrofit wheel set with RDC sensors.

Possible cause:

- 1 or 2 RDC sensors have failed.
- Have fault eliminated by a specialized workshop, preferably an authorized BMW Motorrad retailer.

Possible cause:

A system fault has occurred.

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

Battery of tire-inflation pressure sensor weak

– with Tire Pressure Control (TPC/RDC)^{OE}



General warning light shows yellow.



+ "RdC" is indicated.



NOTICE

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

Possible cause:

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

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

Transmission error

– with Tire Pressure Control (TPC/RDC)^{OE}



+ "---" or "--- --" is indicated.

Possible cause:

The vehicle's speed has not exceeded the threshold of approx. 19 mph (30 km/h). The RDC sensors do not transmit their signal until a speed above this threshold is reached (▮ 85).

- Watch the RDC display at higher speed. A permanent

fault has not occurred until the general warning lamp also lights up. In this case:

- Have fault eliminated by 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.

Fuel down to reserve



Fuel-reserve warning light lights up.



WARNING

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

Accident hazard. Damage to the catalytic converter.

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

Possible cause:

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



Reserve fuel quantity

Approx. 3.2 quarts (Approx. 3 l)

- Refueling procedure (▮ 77).

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 avail-

able. Observe additional information on special situations which can lead to ABS fault codes (83).

- 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.

The ASC has detected instability at the rear wheel and has reduced 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 moved at a speed of at least 3.1 mph (5 km/h) in order for 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 (→ 84).

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

Onboard computer indicator

- with onboard computer^{OE}



Distance covered since the fuel reached the reserve level (→ 33)



Average consumption



Average speed



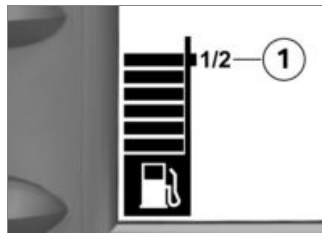
Current fuel consumption



Outside temperature (→ 34)

Fuel level

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



If the fill level indicator reaches the 1/2-mark **1**, the fuel tank is still half full. Now, the fill level is displayed more accurately.

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

Fuel reserve

The fuel level at which the reserve warning light actually lights up will vary according to dynamic riding conditions: substantial in-tank fuel motion (from frequent changes in lean angles when cornering, frequent braking and acceleration) makes it more difficult for the system to determine when the fuel falls to the reserve level. However, the quantity indicated as the fuel reserve on the rear cover represents the minimum in the tank when the lamp initially lights up.

– with onboard computer^{OE}



After the fuel warning light is switched on, the distance driven 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 trip distance recorder for the fuel reserve is reset when the fuel quantity after refueling is greater than the fuel reserve.

Service display



If the time remaining until the next service will elapse within one month, the service date **1**

appears briefly following the pre-ride check. The month and year are shown with two and four digits respectively separated by a colon. In this example the display means "June 2014".



If the vehicle covers high annual mileages then shorter service intervals may be required. When the odometer reading for the recalculated early service falls to within 621 miles (1000 km), the remaining miles (kilometers) **1** are counted down in 62-miles (100-km) steps. They are briefly

displayed following the pre-ride check.



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



NOTICE

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

Outside temperature

– 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

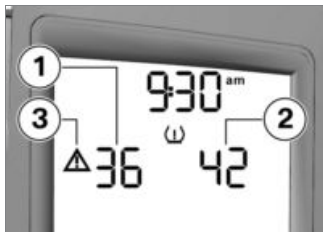
Danger of black ice even above 37 °C (3 °C), despite the lack of ice warning.


Risk of accident due to black ice.

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

Tire inflation pressure

– with Tire Pressure Control (TPC/RDC)^{OE}



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

Further information on BMW Motorrad RDC can be found starting from page (➡ 85).

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

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

Operation

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Steering and ignition lock

Keys

Two main keys and one emergency key are provided with the vehicle. The emergency key features a light, compact design, allowing it to be carried in a wallet, etc. This key is intended for use when no main key is immediately available. It is not suitable for continuous use.

Should you lose your keys please refer to the information regarding the electronic immobilizer (EWS) (► 39).

A single key fits the steering and ignition lock, the fuel filler cap and the seat lock.

- with case^{OA}
- with Topcase^{OA}

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

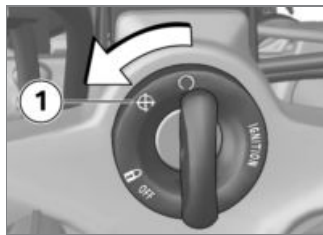
Switching on ignition



- Insert key into the steering and ignition lock. Turn key to position **1**.
 - » Parking lamps and all function circuits are switched on.

- » Pre-Ride Check in progress (► 71)
- » ABS self-diagnosis is performed (► 72)
- with Automatic Stability Control (ASC)^{OE}
 - » ASC self-diagnosis is performed (► 72)◁

Switching off ignition

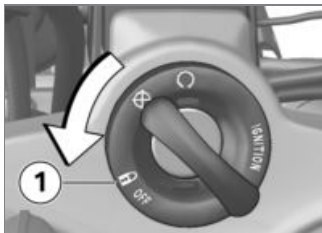


- Turn key to position **1**.
 - » Light switched off.
 - » Handlebars not locked.
 - » Key can now be removed.

- » Electrically powered accessories remain operational for a limited period of time.
- » Battery can be recharged via onboard socket.

Locking handlebars

- Turn handlebars to left.



- Turn key to position **1** while moving handlebars slightly.
- » Ignition, lights and all electrical circuits are switched off.
- » Handlebars are locked.
- » Key can now be removed.

Electronic immobilizer

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



NOTICE

A further key attached to the same ring as the ignition key used to start the engine could "irritate" the electronics, in which case the enabling signal for starting is not issued. The EWS warning is shown in the multifunction display. Always store further vehicle keys separately from the ignition key. ◀

If you lose a motorcycle key, you can have it disabled by your authorized BMW Motorrad Retailer. When having a key disabled you should also bring all of the motorcycle's remaining keys with you.

The engine can no longer be started using a disabled key; however, a disabled key can be enabled again.

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

Clock

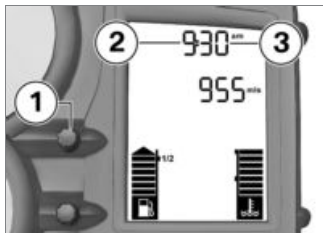
Setting clock



Adjusting the clock while riding.

Accident hazard

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



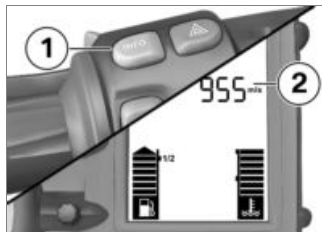
- Press and hold button **1** until hours **2** flash.
- Press button **1** repeatedly until desired hours are shown.

- Press and hold button **1** until minutes **3** flash.
- Press button **1** repeatedly until desired minutes are shown.

Display

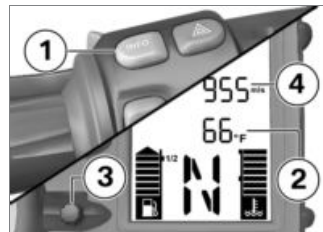
Selecting display readings

- Switch on ignition.



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

- Trip distance recorder 2 (Trip II)
- Warnings if necessary
- with Tire Pressure Control (TPC/RDC)^{OE}
Tire inflation pressures◀
- with onboard computer^{OE}



- Press button **1** to select the display in value area **2**.
The following data can be displayed:



Outside temperature



Average speed



Average fuel consumption



Current fuel consumption



Distance covered since the fuel reached the reserve level

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

The following values can be indicated:

- Total distance (in illustration)
- Trip distance recorder 1 (Trip I)
- Trip distance recorder 2 (Trip II)

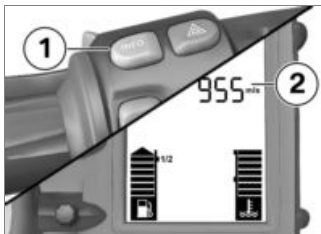
– Warnings if necessary

– with Tire Pressure Control (TPC/RDC)^{OE}

Tire inflation pressures<<<

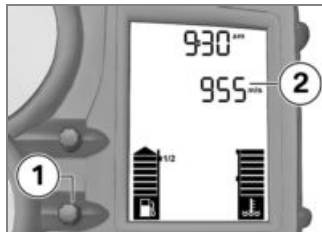
Reset tripmeter

- Switch on ignition.
- Select desired tripmeter.



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

– with onboard computer^{OE}



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

Resetting average data

– with onboard computer^{OE}

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

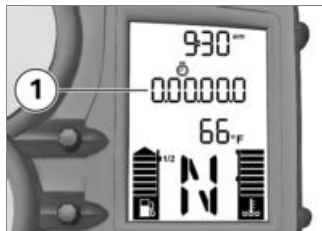


- Press and hold button **1** until displayed value has been reset.

Stopwatch

- with onboard computer^{OE}

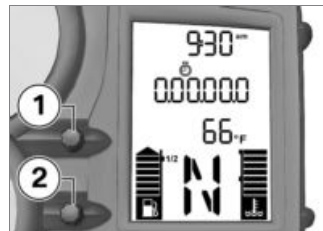
Stopwatch



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

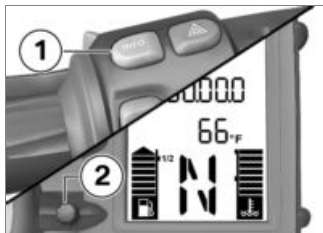
The stopwatch continues to run in the background when the display is temporarily switched over to the odometer. The stopwatch also continues to run when the ignition is temporarily switched off.

Operating stopwatch



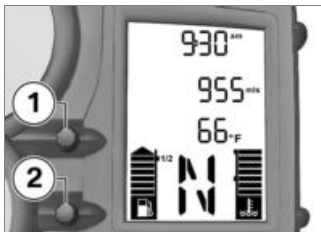
- If necessary, switch over from odometer to stopwatch with button **1**.
- With stopwatch stopped, press button **2** to start stopwatch.
- With stopwatch running, press button **2** to stop stopwatch.
- Press and hold button **2** to re-set stopwatch.

Lap timer



To enable improved operation of the stopwatch while driving (as a lap timer), the functions of button **1** on the handlebar fitting and the functions of button **2** can be interchanged. The stopwatch and the odometer are then operated using button **1**; the onboard computer must be operated using button **2**.

Interchanging button functions



- Press and hold button **1** and button **2** simultaneously until display changes.
 - » FLASH (engine speed warning indicator) and ON or OFF are shown.
- Press button **2**.
 - » LAP (Lap-Timer) and ON or OFF are shown.
- Press button **1** repeatedly until desired state is shown.
 - » ON: operation of the stopwatch using the INFO button on the handlebar fitting.

» OFF: operation of the stopwatch using button **2** in the instrument cluster.

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

Lights

Parking lights

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



NOTICE

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

Headlight low beam

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

Headlight high beam and flasher



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

Parking lamp

- Switch off ignition.



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

Turn indicators

Operating turn indicators

- Switch on the ignition.



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

Hazard warning flashers

Operating hazard warning flashers

- Switch on ignition.



NOTICE

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



NOTICE

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



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

Emergency on/off switch (kill switch)



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



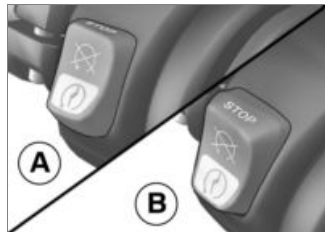
WARNING

Operation of the emergency ON/OFF switch when riding.

Danger of falling due to blocking of rear wheel.

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

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



A Engine switched off

B Operating position

Heated handlebar grips

– with heated handlebar grips^{OE}

Operate heated grips

- Start engine.



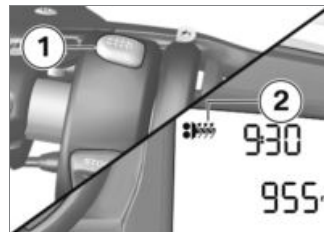
NOTICE

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



NOTICE

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



- Press button **1** repeatedly until desired heating level **2** is shown in the display.

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



50 % heating output



100 % heating output

- » If no further changes are made the selected heating level is adopted as the setting.
- To switch off heated grips, press button **1** repeatedly until heated grip symbol **2** is not shown anymore in the display.

BMW Motorrad ASC

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

Switching the ASC function off

- Switch on ignition.



NOTICE

The ASC function can also be deactivated while driving. ◀



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



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



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



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

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



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

- » The ASC function is switched on.
- As an alternative, the ignition can also be switched off and then on again.

**NOTICE**

If the ASC warning lamp lights up after switching the ignition off and on followed by continued driving over 3 mph (5 km/h), an ASC error has occurred.◀

Clutch**Adjusting clutch lever****WARNING****Adjusting the clutch lever while driving.**

Accident hazard

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



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

**NOTICE**

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

Brakes**Adjusting handbrake lever****WARNING****Modified position of the brake-fluid reservoir.**

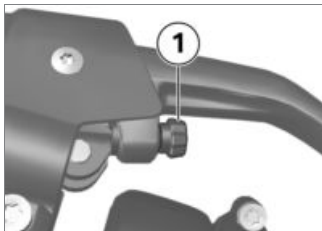
Air in the brake system.

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

**WARNING****Adjusting the brake lever while driving.**

Accident hazard

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



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

**NOTICE**

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

Mirrors

Adjusting mirrors



- Move the mirror to the desired position by turning the housing and the mirror arm.

Spring preload

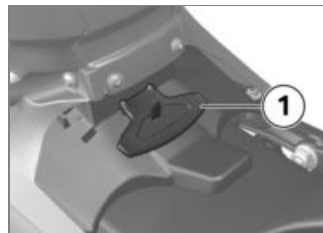
Setting

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

accordingly when the motorcycle is lightly loaded.

Adjusting spring preload at rear wheel

- Remove seat (➡ 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 counterclockwise as far as possible (One-up without load)

Turn adjustment wheel as far as possible counterclockwise, then 12 turns clockwise (One-up with load)

Turn adjustment wheel as far as possible counterclockwise, then 18 turns clockwise (One-up with load and topcase)

Turn adjustment wheel clockwise as far as possible (Two-up with load and topcase)

- Remount toolkit.
- Install the seat (➡ 54).

Damping Setting


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

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

Adjust damping on rear wheel


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



 Basic setting of rear wheel rear-wheel damping

Turn adjusting screw as far as possible clockwise, then turn back 0.5 turns (One-up with load/two-up with load)◁

- To increase damping, turn adjusting screw **1** clockwise.
- To decrease damping, turn adjusting screw **1** counterclockwise.

 Basic setting of rear wheel rear-wheel damping

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

Turn adjusting screw as far as possible clockwise, then turn back 1.5 turns (One-up without load)

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.

Calling up settings

- Switch on ignition.



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



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

- COMF: comfortable damping
 - NORM: normal damping
 - SPORT: sporty damping
- » The display is automatically hidden again after a short time.

Adjust the chassis

- Switch on ignition.



- Press button **1** to display current adjustment.
- In order to adjust different damping:
- Press button **1** repeatedly until the desired setting is displayed in the multifunction display.



NOTICE

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

- » If button **1** is not pressed for a longer time, damping is set as indicated.
- » The ESA display disappears once the adjustment procedure has been completed.

Tires

Checking tire pressure



WARNING

Incorrect tire inflation pressure.

Poorer handling characteristic of the motorcycle. Reduced life of tires.

- Ensure proper tire inflation pressure. ◀

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

Headlight

Adjusting headlight for RHD/LHD traffic

If the motorcycle is ridden in a country where vehicles are driven in the opposite lane relative to your own country, its asymmetric

low-beam headlight will tend to blind oncoming traffic. Have the headlight adjusted for these conditions by an authorized service facility, preferably an authorized BMW Motorrad retailer.



ATTENTION

Use of standard, commercially available adhesive tapes.

Damage to the plastic lens.

- To prevent damage to the plastic lens, consult a specialized workshop, preferably an authorized BMW Motorrad retailer.◀

Headlamp range and spring preload

The headlamp range generally remains constant due to the adjustment of the spring preload to the loading state.

However, in the case of very high payloads, the available spring

preload adjustment might not be adequate. In this case, the headlamp range must be adjusted to the weight.



NOTICE

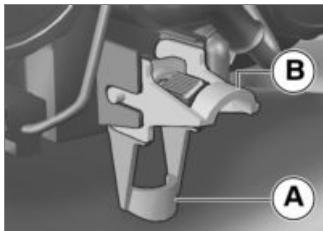
If there are doubts as to the correct headlight range, have the adjustment checked by a specialized workshop, preferably by an authorized BMW Motorrad retailer.◀

Headlight range adjustment



- 1** Headlight range adjustment

A swiveling lever is used for the headlight range adjustment.

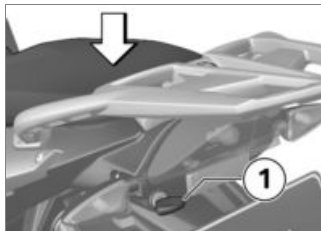


- A** Position with heavy payload
- B** Neutral position

Seat

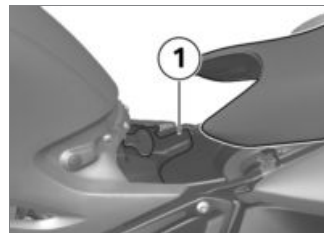
Removing the seat

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



- Turn and hold ignition key in the seat lock **1** 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.

Installing the seat

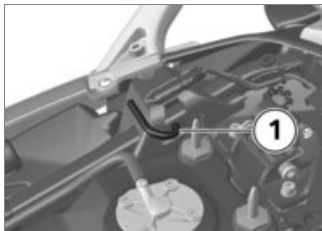


- Insert seat in bracket **1** and press down firmly at rear.
» The seat's detent mechanism will be heard to engage.

Helmet holder

Securing helmet on motorcycle

- Remove seat (➡ 54).



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



ATTENTION

Incorrect positioning of the helmet lock.

Fairing scratched.

- When hooking on the helmet, watch the position of the helmet lock. ◀
- Position helmet as shown in illustration.
- Install the seat (▶▶ 54).

Alarm system

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Logging on additional remote controls.....	63
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Overview

– with anti-theft alarm^{OE}

General information on DWA

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

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

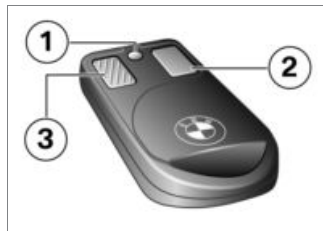
Protection of motorcycle battery

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

Radio interference

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

Controls



- 1** LED
- 2** Right-hand button (▬ 60)
- 3** Left-hand button (ribbed) (▬ 59)

Activation

– with anti-theft alarm^{OE}

Activation with motion sensor



The alarm function will be activated

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

Activation is confirmed

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

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

Activation phase

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

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



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

Motion sensor when transporting the motorcycle

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

Deactivating motion sensor



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

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

Alarm function

- with anti-theft alarm^{OE}

Alarm triggering

The alarm can be set off by:

- The motion sensor
- Switching on the ignition with an unauthorized key
- Disconnection of the DWA from the motorcycle battery (DWA battery assumes the power supply).

Alarm



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

Reason for triggering of the alarm

After the alarm function has been deactivated, the DWA indicator light signals the reason for any alarm triggering which may have occurred for one minute:

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

Note on alarm triggering

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

Deactivation

– with anti-theft alarm^{OE}

Deactivate alarm function



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

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

▶ If the alarm function is deactivated by means of the remote control and the ignition then not switched on, the alarm

function is automatically reactivated after 30 seconds if "Activation after ignition off" has been programmed.◀

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

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

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

Programming

– with anti-theft alarm^{OE}

Programming options

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

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

Factory settings

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

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

Programming DWA



- Deactivate alarm function.
- Switch on ignition.
- Press button **1** three times.
 - » Acknowledgment tone sounds once.
- Switch off the ignition within ten seconds.
- Press button **2** three times.
 - » Acknowledgment tone sounds once.
- Switch on the ignition within ten seconds.
 - » Acknowledgment tone sounds three times.

» The programming function is active.

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

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

Yes:

- Press button **1**.

No:

- Press button **2**.

- **Step 2:**

This step is not assigned any function.

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

- **Step 3:** Which alarm tone is to be selected?

Rising and falling:

- Press button **1**.

Intermittent:

- Press button **2**.

- **Step 4:** Is the alarm function to be automatically activated after the ignition is switched off?

Yes:

- Press button **1**.

No:

- Press button **2**.

When is the programming canceled?

There are two ways to cancel programming:

- By switching off the ignition before the last programming step.

- Automatically if more than 30 seconds pass between two programming steps.

The data are not saved when programming is canceled.

Save programming

There are two ways to save programming:

- By switching off the ignition after the last programming step
- Automatically 30 seconds after the last programming step

The DWA indicator light stops flashing and acknowledgment tones sound.

Logging on additional remote controls

- with anti-theft alarm^{OE}

When is it necessary to log on a remote control?

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

Logging on remote control



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

- » Acknowledgment tone sounds once.
- Switch off the ignition within ten seconds.
- Press button **2** three times.
- » Acknowledgment tone sounds once.
- Switch on the ignition within ten seconds.
- » Acknowledgment tone sounds twice.

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

- Press and hold button **1** and button **2**.
- » LED flashes for ten seconds.
- As soon as the LED goes out, release button **1** and button **2**.
- » LED lights up.
- Press button **1** or button **2**.
- » Alarm tone sounds once.
- » LED goes out.
- » Remote control is logged on.

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

Logon ended

The logon is ended in the following situations:

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

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

Synchronizing

- with anti-theft alarm^{OE}

When is it necessary to synchronize the remote control?

The remote control must be synchronized when the buttons of the remote control has been operated more than 256 times outside the range of the receiver. In this case, the receiver on the motorcycle no longer reacts to the signals of the remote control.

Synchronize remote control



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

- » LED flashes for ten seconds.
- As soon as the LED goes out, release button **1** and button **2**.
- » LED lights up.
- Press button **1** or button **2**.
- » LED goes out.
- Remote control is synchronized.

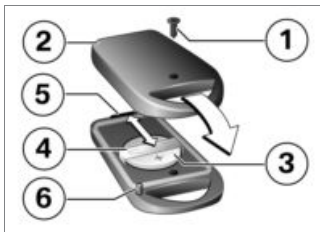
Battery

– with anti-theft alarm^{OE}

When is a battery change required?

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

Replace battery



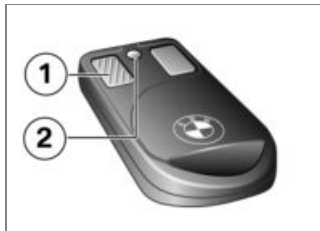
- Remove screw **1** and take off lower housing section **2**.
- Slide old battery **3** forward under bow **4**.



Batteries of the wrong type or incorrect poling of the batteries can destroy the device. Use specified battery (see the chapter "Technical Data"). Ensure proper poling when inserting the battery. ◀

- Install a new battery while making sure that positive terminal of battery is at top.

- Position lower housing section on nose **5** of front edge and close while watching two guide pins **6**.
- Install screw.
- » The LED of the remote control lights up; i.e. the remote control must be activated.



- To activate the remote control within the range of the receiver, press the button **1** twice.
- » LED **2** begins to flash and goes out after a few seconds.
- » The remote-control is again ready to be used.

Riding

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Safety instructions

Rider's equipment

The following clothing protects you while riding:

- Helmet
- Rider's suit
- Gloves
- Boots

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

Load



WARNING

Reduced riding stability caused by overloading and uneven loading.

Accident hazard

- Do not exceed the gross weight limit and observe the loading information.◀
- Adjust spring preload and damping rate for the current gross motorcycle weight.
- with case^{OA}
- Ensure that case volumes on left and right are equal.
- Make sure that weight is uniformly distributed between right and left.
- Pack heavy pieces of luggage to bottom and inside of cases.
- Observe the maximum payload and maximum speed as indicated on the label in the case (see also the chapter "Accessories").◀
- with Topcase^{OA}
- Observe the maximum payload and maximum speed as indicated on the label in the

topcase (see also the chapter "Accessories").◀

- with tank backpack^{OA}
- Observe maximum payload of tank rucksack.



Payload of tank rucksack

max 11 lbs (max 5 kg)◀

- Comply with maximum payload of luggage rack.



Payload of luggage carrier

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
- Imbalanced load
- Loose clothing
- Insufficient tire inflation pressure
- Poor tire tread
- 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

Engine and exhaust system become very hot when the motorcycle is in use.

Burn hazard

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

Catalytic converter

If misfiring causes unburned fuel to enter the catalytic converter, there is a danger of overheating and damage.

The following must be observed:

- Do not run the fuel tank dry
- Do not run the engine with the spark-plug cap removed

- Stop the engine immediately if it misfires
- Use unleaded fuel only
- Comply with all specified maintenance intervals.



ATTENTION

Unburned fuel in the catalytic converter.

Damage to the catalytic converter.

- Note the points listed for protection of the catalytic converter.◀

Danger of overheating



ATTENTION

Engine idling for a lengthy period while at a standstill.

Overheating caused by insufficient cooling. In extreme cases, the motorcycle could catch fire.

- Do not allow the engine to idle unnecessarily.
- After starting, ride off immediately.◀

Modifications



ATTENTION

Modifications to the motorcycle (e.g. engine control unit, throttle valves, clutch).

Damage to the affected parts, failure of safety-relevant functions. Damage caused by modifications invalidates the warranty.

- Do not make any modifications.◀

Observe checklist

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

Before every journey:

- Function of the brake system
- Function of the lighting and signal system
- Check clutch function (▮▮▮ 95).
- Check tire tread depth (▮▮▮ 96).
- Firm seating of cases and luggage

At every third refuelling stop:

- without Electronic Suspension Adjustment (ESA)^{OE}
- Adjusting spring preload at rear wheel (▮▮▮ 49).◀
- without Electronic Suspension Adjustment (ESA)^{OE}
- Adjust damping on rear wheel (▮▮▮ 50).◀
- with Electronic Suspension Adjustment (ESA)^{OE}
- Adjust the chassis (▮▮▮ 52).◀
- Check engine oil level (▮▮▮ 89).

- Check front brake pad thickness (▮▮▮ 91).
- Check rear brake pad thickness (▮▮▮ 91).
- Check front brake fluid level (▮▮▮ 92).
- Checking rear brake fluid level (▮▮▮ 93).
- Check coolant level (▮▮▮ 94).

Starting

Starting the engine



ATTENTION

Sufficient transmission gearbox lubrication only when the engine is running.

Transmission damage

- Do not allow the motorcycle to roll for longer periods or push it over longer distances with the engine switched off.◀
- Switch on ignition.

- » Pre-Ride Check in progress (➡ 71)
- » ABS self-diagnosis is performed. (➡ 72)
- with Automatic Stability Control (ASC)^{OE}
- » ASC self-diagnosis is performed. (➡ 72)◀
- Engage neutral, or pull back clutch lever if a gear is engaged.



NOTICE

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

- For cold starts and at low ambient temperatures: pull the lever to disengage the clutch

and twist the throttle grip slightly.



- Press starter button **1**.



NOTICE

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

- » Engine starts.

- » If the engine fails to start, the troubleshooting chart in chapter "Technical Data" may provide assistance. (➡ 130)

Pre-Ride Check

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

Phase 1

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

Phase 2

The universal warning lamp changes from yellow to red.

Phase 3

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

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

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

ABS self-diagnosis

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

check the wheel speed sensors, the motorcycle must be driven a few yards.

Phase 1

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



ABS indicator light flashes.

Phase 2

Check wheel sensors while starting off.



ABS indicator light flashes.

ABS self-diagnosis completed

The ABS indicator and warning light goes out.

- Check the display of all indicator and warning lights.

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

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

ASC self-diagnosis

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

The self-diagnosis routine is determining whether 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 vehicle is parked.



ASC indicator and warning light flashes slowly.

Phase 2

The diagnostic system evaluates status of monitored system components while vehicle is underway (at least 3.1 mph [5 km/h]).



ASC indicator and warning light flashes slowly.

ASC self-diagnosis completed

ASC warning lamp goes out.

- Watch all warning and indicator lamps on the display.

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

Breaking in

Engine

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



Engine run-in speed

<5000 min⁻¹

- Observe mileage, after which the first 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.◀

Engine speed warning

– with onboard computer^{OE}

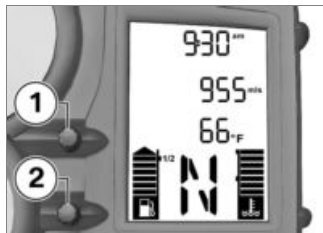
Engine speed warning



The engine speed warning signals to the rider that the red engine speed range has been reached. This signal is shown in red by the flashing of indicator lamp **1**.

The signal is maintained until the transmission is upshifted or the engine speed is reduced. It can be activated or deactivated by the rider.

Activating engine speed warning



- Press and hold button **1** and button **2** simultaneously until display changes.
 - » FLASH (engine speed warning indicator) and ON or OFF are shown.
- Press button **1** until desired state is shown.
 - » ON: engine speed warning activated.
 - » OFF: engine speed warning deactivated.
- To save the setting made, press and hold button **1** and

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

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.

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

Descending mountain passes

WARNING

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

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

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

Wet, soiled brakes

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

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

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

WARNING

Moisture and dirt.

Poorer braking action.

- Brake until brakes are dry or clean; clean if necessary.
- Brake early until the full braking action is available again.◀

Parking your motorcycle

Side stand

- Switch off engine.



ATTENTION

Poor ground conditions in area of stand.

Component damage caused by tipping over.

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



ATTENTION

Loading of the side stand with additional weight.

Component damage caused 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.



ATTENTION

Poor ground conditions in area of stand.

Component damage caused by tipping over.

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



ATTENTION

Folding in of the main stand during strong movements.

Component damage caused by tipping over.

- Do not sit on the motorcycle while it is resting on the center stand.◀
- Fold out center stand and jack up motorcycle.
- On a grade, the motorcycle should always face uphill; select 1st gear.

Refueling

Fuel quality

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



ATTENTION

Leaded fuel.

Damage to the catalytic converter.

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



ATTENTION

Use of Ethanol E85 as fuel.

Damage to the engine and fuel supply.

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



Recommended fuel quality

Super unleaded (max. 10 % ethanol, E10)
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. ◀



WARNING

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

Accident hazard

- Do not overfill the fuel tank. ◀



ATTENTION

Fuel attacks plastic surfaces.

Surfaces become unattractive or cloudy.

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



NOTICE

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



- Open protective cap **1**.
- Unlock cap of fuel tank **2** with motorcycle key and fold open.



- 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. ◀



Reserve fuel quantity

Approx. 3.2 quarts (Approx. 3 l)

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

Securing motorcycle for transport

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



Usable fuel quantity

Approx. 4 gal (Approx. 15 l)

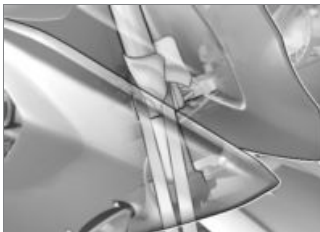


ATTENTION

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 footpegs and then tighten them.
- Tension all straps evenly; the motorcycle should be pulled down against its springs with the suspension highly compressed.

Technology in detail

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Brake system with BMW Motorrad 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 lower 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 rider increases the brake pressure, the wheels begin to lock and driving stability is lost, and a fall can result. Before this situation 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 stability is ensured. After detecting the actual conditions, the system adjusts the optimum brake pressure.

Lifting off rear wheel

During extremely heavy and rapid decelerations it is possible that the 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 op-

timized 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.

Unusual driving conditions can lead to a fault code as well:

- Driving on the rear wheel (wheelie) for a longer period.
- Rear wheel spinning in place with front brake engaged (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?

WARNING

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.

Accident hazard 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.◀

Engine management with BMW Motorrad 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. From the speed difference the slip, and with it the stability reserves on the rear wheel are determined. When a slip limit is exceeded, the engine torque is adapted by the engine management system.

What are the design characteristics of the BMW Motorrad ASC?

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 consid-

erable (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 special requirements resulting under extreme weather conditions offroad or on the racetrack. BMW Motorrad ASC can be deactivated for these cases.



WARNING

Risky riding style.

Accident hazard despite ASC.

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

Special situations

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

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

The following unusual driving conditions may lead to automatic deactivation of BMW Motorrad ASC:

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

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

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

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

Tire pressure control (RDC)

- with Tire Pressure Control (TPC/RDC)^{OE}

Operation

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

The sensors are equipped with a centrifugal controller, which does not enable the transmission of the measured values until a speed of approx. 18.5 mph (30 km/h) is reached. 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.

Tire inflation pressure ranges

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

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

Temperature compensation

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

The tire inflation pressures are shown temperature-compensated in the multifunction display. They refer to a tire air temperature of 68 °F (20 °C). No temperature compensation takes place in the inflation pressure testers at filling stations. The measured tire inflation 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.

Adjusting inflation pressure

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

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

Maintenance

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General instructions

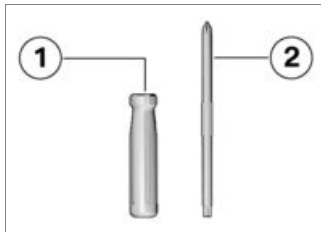
The "Maintenance" chapter describes work involving the checking and replacement of wear parts that can be performed with a minimum of effort.

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.

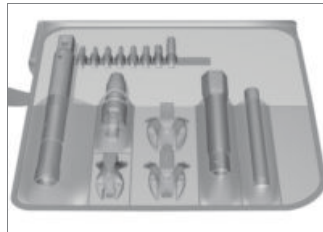
Onboard tool kit Standard tool kit



- 1** Screwdriver handle
- 2** Reversible screwdriver insert
 - Phillips PH1 and Torx T25
 - Remove front and rear turn signal bulb (➡ 109).
 - Replacing brake light and tail light bulbs (➡ 108).
 - Remove center fairing panel (➡ 110).
 - Removing battery (➡ 114).

Service tool kit

– with service toolkit^{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.

Engine oil

Checking engine oil level

ATTENTION

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

Misinterpretation of the oil capacity

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

- with center stand^{OE}
- Make sure ground is level and firm and place motorcycle at operating temperature on its center stand.◀



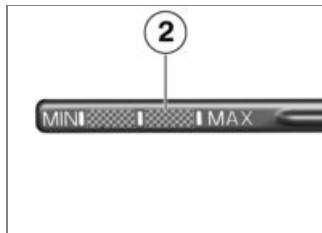
ATTENTION

Motorcycle tips to the side when raising.

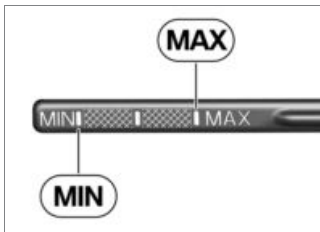
Component damage cause by tipping over.

- Secure the motorcycle against tipping to the side, preferably with the assistance of a second person.◀

- Remove oil dipstick **1**.



- 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 MIN and MAX marking



Engine oil, quantity for topping up

Viscosity rating

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

If fluid level is below MIN mark:

- Top up engine oil (►► 90).

If fluid level is above MAX mark:

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

Topping up engine oil



ATTENTION

Too little or too much engine oil.

Engine damage

- Always make sure that the oil level is correct.◀
- Make sure ground is level and firm and park motorcycle.
- Clean the area adjacent to the oil filler opening.



- Remove oil dipstick **1**.
- Check engine oil level (►► 89).
- Add engine oil up to specified level.
- Check engine oil level (►► 89).
- Install oil dipstick.

Brake system

Checking brake operation

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

If no clear pressure points are perceptible:

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

Checking front brake pad thickness

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



- Visually inspect left and right brake pads from the front to determine their thickness. Direction of view: between wheel

and front suspension to brake calipers.



Front brake-pad wear limit

min 0.04 in (min 1.0 mm)
(Only friction material without carrier plate. Wear markings (grooves) must be clearly visible.)

If the wear indicators are no longer clearly visible:



WARNING

Dropping below the minimum pad thickness.

Reduced braking action. Damage to the brake.

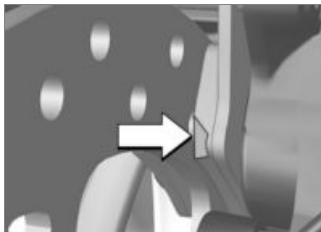
- In order to ensure the operating reliability of the brake system, make sure that the brake pads are not worn beyond their minimum thickness. ◀
- Have the brake pads replaced by a specialist service facility, preferably an authorized BMW Motorrad retailer.

Checking rear brake pad thickness

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



- Check the brake pad thickness with visual inspection. Direction of view: from rear at brake caliper.



Rear brake-pad wear limit

min 0.04 in (min 1.0 mm)
(Only friction material without carrier plate. The chamfer 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 the brake pads replaced by a specialist service facility, preferably an authorized BMW Motorrad retailer.

Checking front brake fluid level



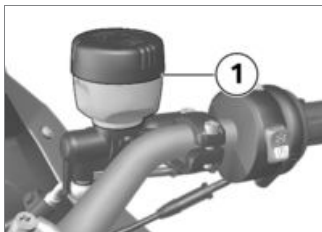
WARNING

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.

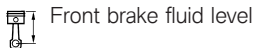
- with center stand^{OE}
- Make sure ground is level and firm and place motorcycle on its center stand.◀
- Move handlebars into straight-ahead position.



- 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.◀



Brake fluid, DOT4

The brake fluid level must not fall below the MIN mark.

If brake fluid level falls below the approved level:

- Have the defect corrected as soon as possible by a specialist service facility, preferably an authorized BMW Motorrad retailer.

Checking 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 mark.

If brake fluid level falls below the approved level:

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

Coolant

Checking coolant level

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



- Read off coolant level on expansion tank **1**. Illuminate from the bottom for better visibility.



Coolant, specified level

between MIN and MAX marks
on the expansion tank

If coolant level drops below approved level:

- Have the coolant system checked at a specialist service facility, 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:

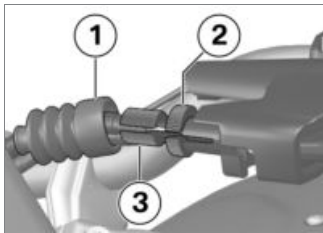
- Have the clutch checked by an authorized workshop, preferably an authorized BMW Motorrad retailer.

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 play (► 96).

Adjusting clutch play



- Slide rubber grommet **1** to the side.
- Loosen the nut **2**.
- To increase clutch play: turn adjusting screw **3** into handlebar fitting.
- To decrease clutch play: turn adjusting screw **3** out of handlebar fitting.
- Check clutch pedal free play (▮▮▮ 95).
- 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.

Wheel 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.



NOTICE

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

When the minimum tread depth is reached:

- Replace 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

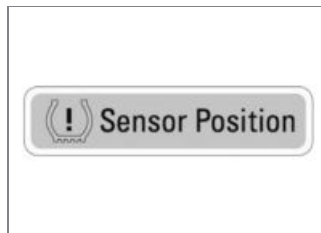
Wheel sizes greatly affect the function of the ABS system. Especially the diameter and width of the wheels are stored in the

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.

RDC sticker

– with Tire Pressure Control (TPC/RDC)^{OE}



ATTENTION

Improper tire removal.

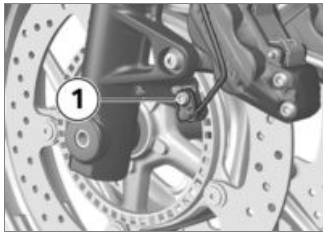
Damage to the TPC/RDC sensors.

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

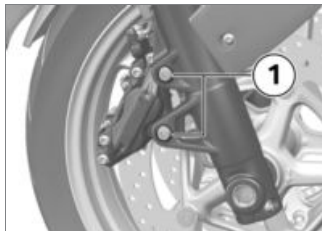
On motorcycles equipped with RDC, a corresponding sticker is located on the wheel rim in close proximity to the RDC sensor.

Removing front wheel

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



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

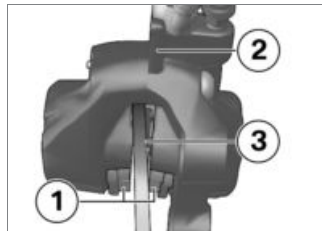


ATTENTION

Pressing together the brake pads with the brake caliper removed.

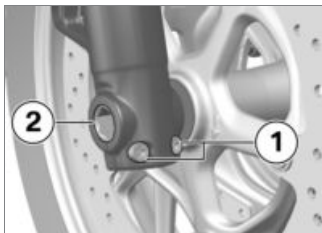
The brake caliper cannot be mounted over the brake disc.

- Do not operate the brake lever with the brake caliper removed.◀
- Remove screws **1** of brake calipers on left and right.



- Push brake pads **1** slightly apart by turning the brake caliper **2** back and forth against the brake rotor **3**.
- Mask off area of wheel rim that could be scratched in process of removing brake calipers.
- Carefully pull brake calipers back to remove them from the brake rotors.
- Place motorcycle on an auxiliary stand; BMW Motorrad recommends BMW Motorrad rear-wheel stand.
- Mount rear-wheel stands (▶ 104).

- with center stand^{OE}
- Make sure ground is level and firm and place motorcycle on center stand.◀
- Raise front of motorcycle until the front wheel can turn freely. BMW Motorrad recommends the BMW Motorrad front wheel stand for lifting the motorcycle.
- Mount front wheel stand (➡ 102).



- Loosen axle clamping screws **1**.
- Remove quick-release axle **2** while supporting wheel.

- Roll front wheel forward to remove.



- Remove spacing bushing **1** on left side from wheel hub.

Installing front wheel

WARNING

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

Malfunctions during control interventions by ABS.

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

ABS system at the beginning of this chapter.◀

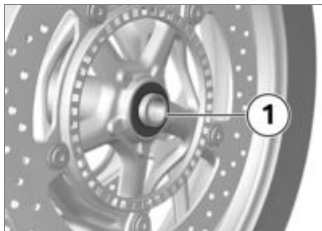


ATTENTION

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.◀



- Insert spacing bushing **1** on left side into wheel hub.

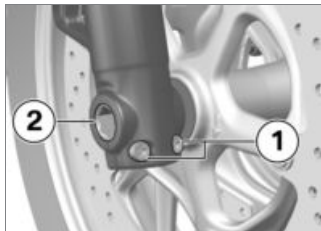


ATTENTION

Front wheel installation opposite the running direction.

Accident hazard

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



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



Quick-release axle in telescopic fork

37 lb/ft (50 Nm)

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

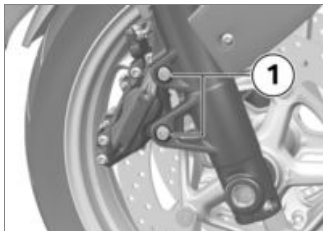


Pinch bolt on quick-release axle

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

14 lb/ft (19 Nm)

- Remove front wheel stand.
- without center stand^{OE}
- Remove auxiliary stand.◀
- Slide the brake calipers onto the brake rotors.

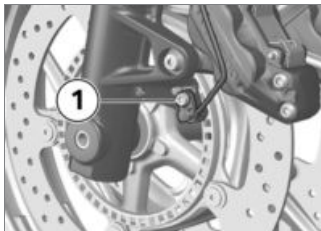


- Install screws **1** with specified torque.



Brake caliper on fork leg

22 lb/ft (30 Nm)



- Insert wheel speed sensor in bore and install screw **1**.
- Remove adhesive tape from wheel rim.
- Operate brakes several times until brake pads contact brake disk.

Removing rear wheel

- Make sure ground is level and firm and place motorcycle on a suitable auxiliary stand. BMW Motorrad recommends the BMW Motorrad rear-wheel stand.
- Mount rear-wheel stands (➡ 104).

– with center stand^{OE}

- Make sure ground is level and firm and place motorcycle on center stand.◀
- Shift into first gear.



- Remove bolts **1** of rear wheel, supporting the wheel as you do so.
- Roll rear wheel out toward rear.

Installing rear wheel



WARNING

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

Malfunctions during control interventions by ABS.

- 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.◀

- Place rear wheel on rear wheel support.



- Tighten bolts **1** diagonally with specified torque.



Rear wheel on drive shaft

Tightening sequence: tighten diagonally

44 lb/ft (60 Nm)

- without center stand^{OE}
- Remove auxiliary stand.◀

Front wheel stand

Mounting front wheel stand



ATTENTION

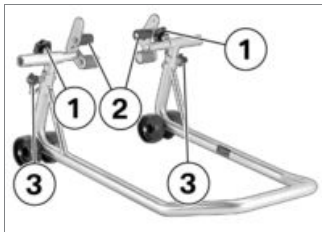
Use of the BMW Motorrad front wheel stand without an additional auxiliary stand.

Component damage cause by tipping over.

- Place the motorcycle on an auxiliary stand before lifting the front wheel with the BMW Motorrad front-wheel stand.◀
- Place motorcycle on an auxiliary stand; BMW Motorrad recommends BMW Motorrad rear-wheel stand.
- Mount rear-wheel stands (104).

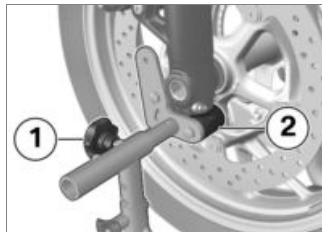
- with center stand^{OE}
- Make sure ground is level and firm and place motorcycle on center stand.◀

- Use basic stand with front wheel mount. The basic stand and its accessories are available through your authorized BMW Motorrad retailer.

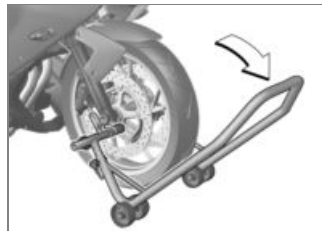


- Loosen mounting screw **1**.
- Push the two mounts **2** far enough apart that the telescopic fork fits between them.
- Use locating pins **3** to set front wheel stand to desired height.

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



- Align the two mounts **2** so that the telescopic fork rests securely on them.
- Tighten mounting screw **1**.



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

- with center stand^{OE}



ATTENTION

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

Component damage caused by tipping over.

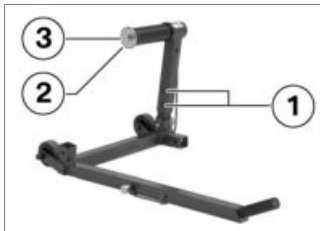
- When raising the motorcycle, make sure that the center stand remains on the ground.

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

Rear-wheel stand

Mounting rear-wheel stands

- Make sure ground is level and firm and park motorcycle.
- Use basic stand with rear wheel adapter. The basic stand and its accessories are available through your authorized BMW Motorrad retailer.



- Set desired height of rear-wheel stand using bolts **1**.
- Remove the lock washer **2**; to do so, press the unlock button **3**.



- Push the rear-wheel stand from the right onto the rear axle.
- Apply the retaining disk from the left; to do so, press the unlock button.



- Position motorcycle upright while simultaneously pressing

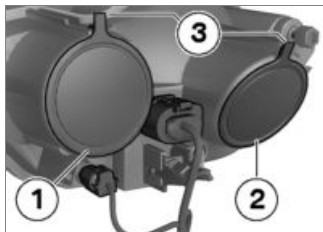
grip of stand back so that both stand rollers rest on ground.

- Then press the grip down to the ground.

Lamps

Replacing low-beam and/or high-beam bulb

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



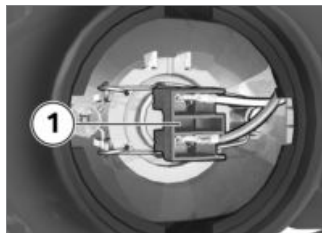
- Remove cover **1** for high-beam headlight or cover **2** for low-

beam headlight by pulling on lever **3**.

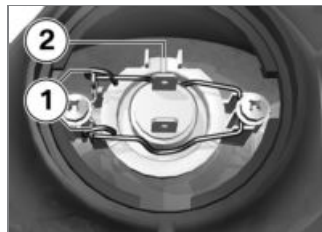


NOTICE


The alignment of connector, spring wire strap and bulb may differ from that shown in the following illustrations.◀



- Disconnect the plug **1**.



- Remove wire spring clip **1** from the retainers and fold to side.
- Remove bulb **2**.
- Replace defective light source.

 Bulb for high-beam headlight

H7 / 12 V / 55 W

 Bulbs for low-beam headlight

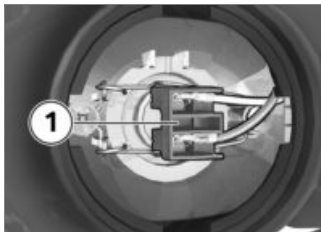
H7 / 12 V / 55 W

- To avoid leaving contamination deposits on the new bulb's

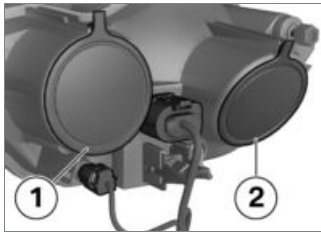
glass surface, always hold it by its base.



- Insert the bulb **1**, ensuring that the lug is in the correct position.
- Close and lock spring wire strap **2**.



- Connect the plug connection **1**.



- Install cover panel **1** for high-beam headlamp or cover panel **2** for lowbeam headlamp.

Replacing bulb for parking light

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



NOTICE

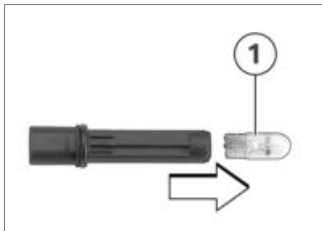
To achieve better accessibility, turn the handlebars to the left. ◀



- Disconnect plug connection **1**.



- Remove the socket **1** by turning it counterclockwise.



- Pull the light source **1** out of the socket.

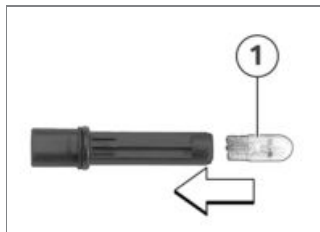
- Replace defective light source.



Bulb for parking light

W5W / 12 V / 5 W

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



- Press the light source **1** into the socket.



- Install the socket **1** by turning it clockwise.



- Connect the plug connection **1**.

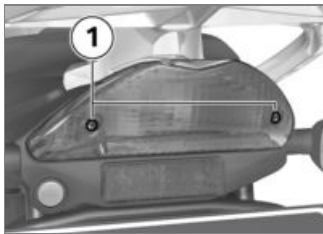
Replacing brake light and tail light bulbs

– with LED tail light^{OA}

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

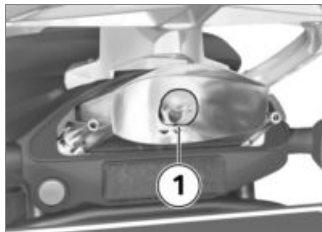
– without LED tail light^{OA}

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



- Remove screws **1**.

- Pull off light housing toward rear.



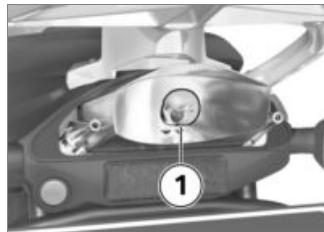
- Press bulb **1** into socket and turn counterclockwise to remove.
- Replace defective bulb.



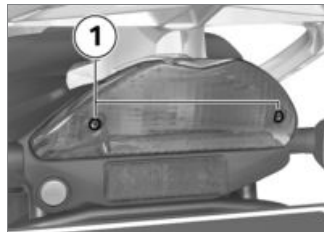
Bulb for taillight/brake light

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

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



- Press bulb **1** into socket and install by turning clockwise.



- Position lamp housing and install screws **1**.<

Removing front and rear turn signal bulb

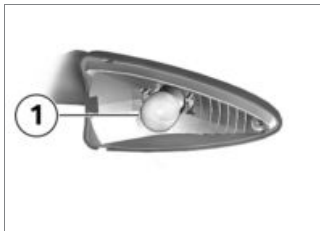
- Make sure ground is level and firm and park motorcycle.
- Switch off ignition.



- Remove screw **1**.



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



- Remove bulb **1** from light housing by turning it counterclockwise.

Installing front and rear turn signal bulb

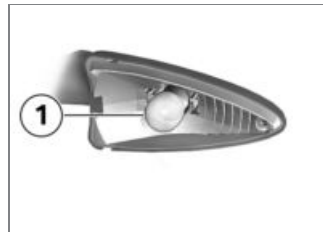
- Replace defective bulb.



Bulbs for flashing turn indicators, front

RY10W / 12 V / 10 W

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



- Install bulb **1** by screwing clockwise into light housing.



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

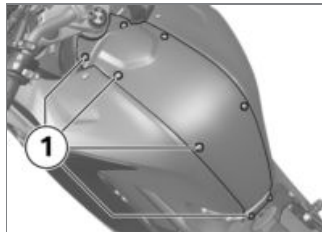


- Install screw **1**.

Fairings and panels

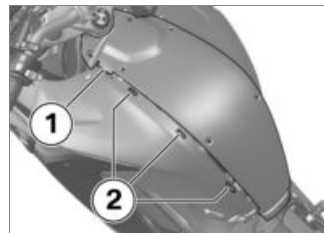
Removing center fairing panel

- Remove seat (➡ 54).

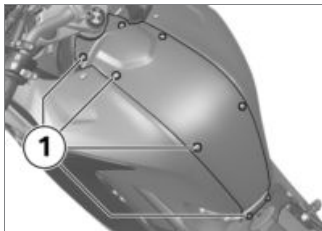


- Remove four screws **1** on left and right and take off center fairing panel.

Installing center fairing panel



- Slide center fairing panel at left and right under fairing side panels at position **1** and then insert in guides **2** on left and right.



ATTENTION

Plastic washers missing from painted components.

Paint damage

- Fit the plastic washers under the heads of the screws.◀
- Install four screws **1** on left and right.



Fairings

1 lb/ft (2 Nm)

- Install the seat (▶▶ 54).

Jump-starting

ATTENTION

Current too high when jump-starting the motorcycle

Cable fire or damage to the vehicle electronics

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

ATTENTION

Contact between crocodile clips of jump leads and motorcycle.

Danger of short circuit

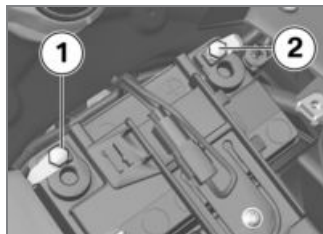
- Use jump leads fitted with fully insulated crocodile clips at both ends.◀

ATTENTION

Jump-starting with a voltage higher than 12 V.

Damage to the motorcycle's electronics.

- The battery of the donor vehicle must have a voltage of 12 V.◀
- Remove seat (▶▶ 54).
- Remove center fairing panel (▶▶ 110).
- 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 cable from negative terminals first, then disconnect second cable from positive terminals.



NOTICE

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

- Install center fairing panel (110).
- Install the 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

ing 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 of the connected battery on the battery terminals.

Damage to the motorcycle's electronics.

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

ATTENTION

Unsuitable chargers connected to the power socket.

Damage to charger and chassis electronics.

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

ATTENTION

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

Damage to the motorcycle's electronics.

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

NOTICE

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

- Comply with operating instructions of charger.

NOTICE

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

Charging disconnected battery

- Charge battery using a suitable charger.

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



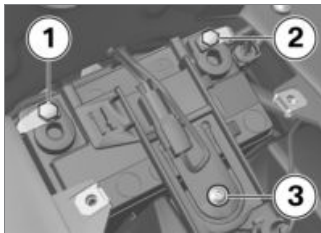
NOTICE

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

Removing battery

- Remove seat (➡ 54).
- Remove center fairing panel (➡ 110).
- Park motorcycle, ensuring that support surface is firm and level.

- with anti-theft alarm system (DWA)^{OE}
- Switch off anti-theft alarm system if necessary. ◀
- Switch off ignition.



ATTENTION

Incorrect battery disconnection.

Danger of short circuit

- Follow the disconnection sequence. ◀
- Remove negative cable **1** first.
- Then remove positive cable **2**.

- Remove screw **3** and take off battery carrier.
- Lift battery up and out, using tilting movements if it is difficult to move.

Install battery

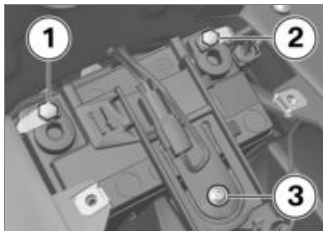


NOTICE

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

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

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



- Push battery carrier over battery and install screw **3**.



ATTENTION

Incorrect battery connection.

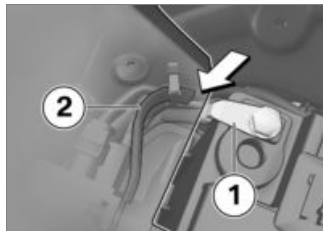
Danger of short circuit

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



Wiring harness on battery

4 lb/ft (5 Nm)



- Make sure that the battery minus cable **1** has sufficient distance **Arrow** to the relay carrier **2**.
- Install center fairing panel (▶▶▶ 110).
- Install the seat (▶▶▶ 54).
- Set clock (▶▶▶ 40).

Accessories

General instructions.....	118
Onboard sockets	118
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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. You will find all BMW Motorrad optional accessories on our website: "www.bmw-motorrad.com".

Onboard sockets

Connection of electrical devices

- Additional devices connected to onboard sockets can only be put into operation when the ignition is switched on.

Cable routing

- The cables from the onboard sockets to the auxiliary devices must be routed in such a way that they do not impede the rider.
- Cable routing must not restrict the steering angle and the handling characteristics.
- Cables must not be trapped.

Automatic switch-off

- The onboard sockets are automatically switched off during starting.
- These sockets are switched off approx. 15 minutes after

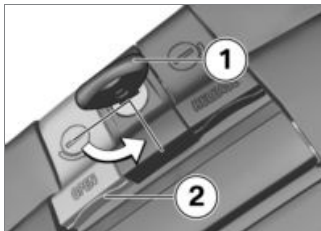
switching off the ignition to reduce the strain on the onboard electrical system. Additional devices with low power consumption are possibly not detected by the vehicle electronics. In these cases, onboard sockets are already switched off shortly after the ignition is switched off.

- In case of insufficient battery voltage, the onboard sockets are switched off to maintain the ability to start the motorcycle.
- If the maximum loadability specified in the technical data is exceeded, the onboard sockets are switched off.

Case

Opening case

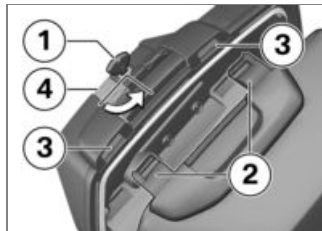
- with case^{OA}



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

Closing case

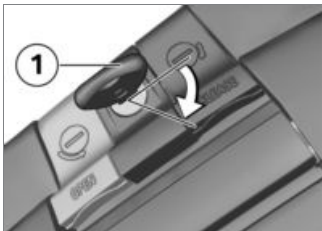
- with case^{OA}



- Turn key **1** to position OPEN.
- Press catches **2** of case lid into retainers **3**. Ensure that no luggage is trapped between lid 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.

Removing case

- with case^{OA}



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

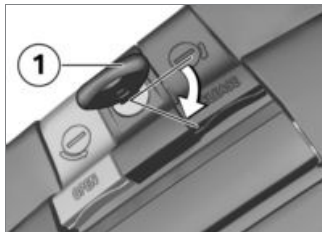


- Pull black release lever **1** (RE-LEASE) upward while simultaneously pulling the case outward.

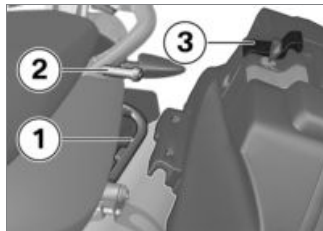
- Then lift case out of lower mounting.

Mounting case

– with 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** (RE-LEASE) 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 top speed as indicated on label in case.

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

The following values apply to the combination described here:



Speed limit for driving with case

– with case^{OA}

See label in case<1



Payload of case

– with case^{OA}

See label in case<1

Secure hold

– with case^{OA}



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



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.

Removing 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 the topcase

– with Topcase^{OA}

- Fold up handle as far as possible.



- Hook topcase into the luggage rack. Make sure that hooks **1** engage securely in their mounts **2**.



- Press handle **1** 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 label, contact your BMW Motorrad Retailer.

The following values apply to the combination described here:



Speed limit for driving
with Topcase

– with Topcase^{OA}

See label in Topcase<



Payload of Topcase

– with Topcase^{OA}

See label in Topcase<

Care

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Care products

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



ATTENTION

Use of unsuitable cleaning and care agents.

Damage to motorcycle parts.

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

Washing your motorcycle

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

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

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.

- 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 seals, to hydraulic brake system, to the electrical system and the seat.

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



NOTICE

Cases and topcases made of aluminum have no surface coating. The best possible appearance is preserved with the following care: Remove road salt and corrosive deposits immediately with cold water after completing the trip.◀

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.

Plastic windshields and headlight lenses

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 parts

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

Radiator

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



ATTENTION

Radiator fins bend easily.

Damage to radiator fins.

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

Rubber 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 vehicle regularly prevents paint damage, especially if your vehicle is ridden in areas with high air pollution or natural sources of dirt, e.g. tree resin or pollen.

However, remove particularly aggressive substances (spilled fuel, oil grease, brake fluid as well as bird droppings) immediately; otherwise changes in the paint or discolorations may occur. BMW Motorrad recommends

BMW Car Polish or BMW Paint Cleaner for this purpose.

Contamination on the paint finish is particularly easy to see after the vehicle has been washed. Remove this type of soiling with cleaning naphtha or spirit on a clean cloth or cotton ball. BMW Motorrad recommends removing tar spots with BMW Tar Remover. Then add a protective

wax coating to the paint at these locations.

Store motorcycle

- Clean motorcycle.
- Completely fill the motorcycle's fuel tank.
- Removing battery (➡ 114).
- Spray the brake and clutch lever, and the center and side stand pivots with a suitable lubricant.
- Protect metal and chrome-plated parts with an acid-free grease (Vaseline).
- Park the motorcycle in a dry space in such a way that both wheels are under no load (preferably by using the front and rear-wheel stands available from BMW Motorrad).

Protective wax coating

Paint must be protected, if water no longer pearls up on it.

To preserve the finish of your vehicle, BMW Motorrad recommends BMW Car Wax or agents that contain carnauba or synthetic waxes.

Return motorcycle to use

- Remove the protective wax coating.
- Clean motorcycle.
- Install battery (➡ 114).
- Observe checklist (➡ 70).

Technical Data

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Troubleshooting chart

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

Possible cause	Remedy
Emergency on/off switch (kill switch)	Adjust emergency on/off switch (kill switch) to normal operating position.
Side stand extended and gear engaged	Engage neutral or fold up the side stand.
Gear engaged and clutch not disengaged	Place transmission in neutral or disengage clutch.
No fuel in tank	Refueling procedure (➡ 77).
Battery drained	Charge connected battery (➡ 113).

Threaded fasteners

Front wheel	Value	Valid
Brake caliper on fork leg		
M10 x 1.25 x 35 - 10.9	22 lb/ft (30 Nm)	
Pinch bolt on quick-release axle		
M8 x 30	Tighten the screws 6 times, alternating between one and the other each time	
	14 lb/ft (19 Nm)	
Quick-release axle in telescopic fork		
M24 x 1.5	37 lb/ft (50 Nm)	
Rear wheel	Value	Valid
Rear wheel on drive shaft		
M10 x 1.25 x 40	tighten diagonally	
	44 lb/ft (60 Nm)	

Engine

Engine design	Two-cylinder, four-stroke engine, DOHC control, 4 valves actuated by trailing valve levers, liquid cooling for cylinders and cylinder head, integrated coolant pump, 6-speed manual transmission and dry-sump lubrication
Displacement	798 cc (798 cm ³)
Cylinder bore	3.2 in (82 mm)
Piston stroke	3 in (75.6 mm)
Compression ratio	12:1
Rated output	90 hp (66 kW), at engine speed: 8000 min ⁻¹
Torque	63 lb/ft (86 Nm), at engine speed: 5800 min ⁻¹
Maximum engine speed	max 9000 min ⁻¹
Idle speed	1250 ⁺⁵⁰ min ⁻¹ , with motorcycle stopped

Fuel

Recommended fuel quality	Super unleaded (max. 10 % ethanol, E10) 89 AKI (95 ROZ/RON) 89 AKI
Usable fuel quantity	Approx. 4 gal (Approx. 15 l)
Reserve fuel quantity	Approx. 3.2 quarts (Approx. 3 l)

BMW recommends BP fuel



Engine oil

Engine oil, capacity	Approx. 3.2 quarts (Approx. 3.0 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

BMW recommends **ADVANTEC**
ORIGINAL BMW ENGINE OIL

Oil additives	BMW Motorrad does not recommend the use of oil additives, as these can adversely affect the operation of the clutch. Ask your BMW Motorrad retailer for engine oils suitable for your motorcycle.
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BMW recommends **ADVANTEC**
ORIGINAL BMW ENGINE OIL

Clutch

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

Transmission

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

Rear-wheel drive

Type of final drive	Belt drive with jerk damping in its own housing
---------------------	---

Suspension

Front wheel

Type of front suspension	Telescopic forks
Spring travel, front	4.9 in (125 mm), on wheel

Rear wheel

Type of rear suspension	Single-arm light-alloy cast swinging arm with rear wheel axle adjustable via eccentric
Type of rear suspension	Directly articulated central spring strut with adjustable rebound-stage damping/spring preload
– with Electronic Suspension Adjustment (ESA) ^{OE}	Directly articulated central spring strut with adjustable spring preload/electrically adjustable rebound-stage damping
Spring travel at rear wheel	4.9 in (125 mm), on wheel

Brakes

Front wheel

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

Rear wheel

Type of rear brake	Hydraulic 1-piston floating calipers with fixed brake disk
Brake-pad material, rear	Sintered metal

Wheels and tires

Recommended tire combinations	An overview of the current tire approvals is available from your authorized BMW Motorrad retailer or on the Internet at bmw-motorrad.com .
Speed category of front/rear tires	V, minimum requirement: 149 mph (240 km/h)

Front wheel

Front wheel design	Cast aluminum, MT H2
Front-wheel rim size	3.50" x 17"
Front tire designation	120/70 ZR 17
Load index for front tire	At least 49
Permissible front-wheel imbalance	max 0.2 oz (max 5 g)

Rear wheel

Rear wheel design	Cast aluminum, MT H2
Rear-wheel rim size	5.5" x 17"
Rear tire designation	180/55 ZR 17
Load index for rear tire	At least 70
Permissible rear-wheel imbalance	max 1.6 oz (max 45 g)

Tire inflation pressure

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

Electrical rating of onboard sockets	5 A
Fuses	All electrical circuits are electronically protected. If an electronic fuse trips and de-energizes a circuit, the circuit is active as soon as the ignition is switched on after the fault has been rectified.

Battery

Battery design	AGM (Absorptive Glass Mat) battery.
Battery voltage	12 V
Battery capacity	12 Ah

Spark plugs

Spark plugs, manufacturer and designation	NGK DCPR 8 E
Electrode gap of spark plug	0.03...0.04 in (0.8...0.9 mm), new

Bulbs

Bulb for high-beam headlight	H7 / 12 V / 55 W
Bulbs for low-beam headlight	H7 / 12 V / 55 W
Bulb for parking light	W5W / 12 V / 5 W
Bulb for taillight/brake light	P21/5W / 12 V / 5 W / 21 W
Bulbs for flashing turn indicators, front	RY10W / 12 V / 10 W
Bulbs for flashing turn indicators, rear	RY10W / 12 V / 10 W

Frame

Frame design	Cast light alloy welded design with screwed-on rear frame
Location of type plate	Right steering head
Location of the vehicle identification number	Right steering head

Dimensions

Motorcycle length	84.9 in (2156 mm)
Motorcycle height	49.2 in (1250 mm), without rider at unladen weight, up to upper edge of windshield
Motorcycle width	35.6 in (905 mm), across mirrors
Rider's seat height	31.5 in (800 mm), without rider at unladen weight
– with comfort seat ^{OE}	32.3 in (820 mm), without rider at unladen weight
– with low seat ^{OE}	30.1 in (765 mm), without rider at unladen weight
Rider's inside-leg arc, heel to heel	72.2 in (1835 mm), without rider at unladen weight
– with comfort seat ^{OE}	73.2 in (1860 mm), without rider at unladen weight
– with low seat ^{OE}	69.1 in (1755 mm), without rider at unladen weight

Weights

Unladen weight	470 lbs (213 kg), DIN unladen weight, ready for road, 90 % full tank of gas, without OE
Permissible gross weight	926 lbs (420 kg)
Maximum payload	456 lbs (207 kg)

Performance data

Top speed	>124 mph (>200 km/h)
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Service

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Reporting safety defects

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

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

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

BMW Motorrad Service

With its worldwide dealer network, BMW Motorrad can attend to you and your motorcycle in over 100 countries around the globe. Authorized BMW Motorrad retailers have the technical information and expertise needed to conduct reliable service and repairs covering every aspect of your BMW.

You 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 due to subsequent damage.

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

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

To ensure that your BMW consistently remains in 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 motorcycle owner and the mileage driven. Your BMW Motorrad retailer confirms that the service has been performed and enters the date for the next service.

For riders who drive long distances annually, it may be necessary to come in for service before the entered date. In this case a corresponding maximum odometer reading will also be entered in the confirmation of service. If this odometer reading is reached before the next service date, service must be performed sooner.

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


More information on the topic of service is available at:

bmw-motorrad.com/service

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

[illegible]

Maintenance schedule

- 1** BMW running-in check
- 2** Standard BMW Service
( 148)
- 3** Engine oil change with filter
- 4** Check valve clearance
- 5** Replace all spark plugs
- 6** Replacing air cleaner insert
- 7** Replace belts and rear shock absorbers
- 8** Check belt wheel, belt pinions and shock absorbers for belt pinions
- 9** Change the brake fluid in the entire system
 - a** annually or every 6000 miles (whichever comes first)
 - b** for the first time after one year, then every two years

Standard BMW Service

The standard BMW Service includes the following maintenance work:

- Performing the brief test using the BMW Motorrad diagnosis system.
- Checking the coolant level.
- Check/adjust clutch play.
- Checking accelerator Bowden cable for ease of movement, chafing and kinks, and play.
- Checking the front/rear brake pads and brake discs for wear.
- Checking the front/rear brake fluid level.
- Visual inspection of brake lines, brake hoses and connections.
- Checking the tyre pressure and tread depth.
- Checking the toothed belt(s).
- Checking the belt tension.
- Checking the steering head bearings.
- Checking the side stands for ease of movement.
- Checking the center stand for ease of movement (when a center stand is fitted as optional equipment).
- Check the rear mainframe screw connection for nominal torque.
- Check the screw connection of the rider's footrest plates on the left- and right-hand side for nominal torque.
- Check the eccentric clamp for nominal torque.
- Checking the lighting and signal system.
- Checking that the engine starting suppression works.
- Final inspection and checking for road safety.
- Setting the service date and remaining distance to service.
- Checking the battery state of charge.
- Recording the BMW Service in the on-board literature.

Confirmation of maintenance work

BMW Pre-Delivery Check

Conducted

on _____

Stamp, Signature

BMW Running-in Check

Conducted

on _____

Odometer reading _____

Next service
at the latest

on _____

or, if reached sooner,

Odometer reading _____

Stamp, Signature

BMW Service

Conducted

on _____

Odometer reading _____

Next service
at the latest

on _____

or, if reached sooner,

Odometer reading _____

Stamp, Signature**BMW Service**

Conducted

on _____

Odometer reading _____

Next service
at the latest

on _____

or, if reached sooner,

Odometer reading _____

Stamp, Signature**BMW Service**

Conducted

on _____

Odometer reading _____

Next service
at the latest

on _____

or, if reached sooner,

Odometer reading _____

Stamp, Signature

BMW Service

Conducted

on _____

Odometer reading _____

Next service
at the latest

on _____

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on _____

Odometer reading _____

Next service
at the latest

on _____

or, if reached sooner,

Odometer reading _____

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

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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.

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Fuel

Usable fuel quantity	Approx. 4 gal (Approx. 15 l)
Reserve fuel quantity	Approx. 3.2 quarts (Approx. 3 l)

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

