



BMW Motorrad



Rider's Manual (US Model)

**R 1200 RT**

## Motorcycle/Retailer Data

### Motorcycle Data

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Model

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Vehicle identification number

---

Color number

---

Initial registration

---

License plate

### Retailer Data

---

Contact in Service

---

Ms./Mr.

---

Phone number

---

Retailer's address/phone number (company stamp)

## Welcome to BMW

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

### About this Rider's Manual

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

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

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

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

### Suggestions and complaints

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

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

BMW Motorrad.

01 40 8 403 467



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## Overview

This Rider's Manual has been designed to provide quick and efficient orientation. The quickest way for you to find information on specific topics is to consult the comprehensive index at the back of the manual. If you would like to start with a quick overview of your motorcycle, this information has been provided in chapter 2. All maintenance and repair work carried out on your motorcycle will be documented in chapter 11. Documentation confirming performance of scheduled maintenance is a precondition for generous handling of out-of-warranty claims and goodwill warranty treatment.

When the time comes to sell your BMW, 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.
- D-ESA Electronic chassis and suspension adjustment.

- DTC Dynamic Traction Control (optional equipment only in combination with Pro riding modes).
- TPC Tire Pressure Control (TPC/RDC).

## 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). It may also describe equipment options that you have not chosen. 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 outputs in the Rider's Manual relate to the German DIN standards and comply with their tolerance specifications. Versions for individual countries may differ.

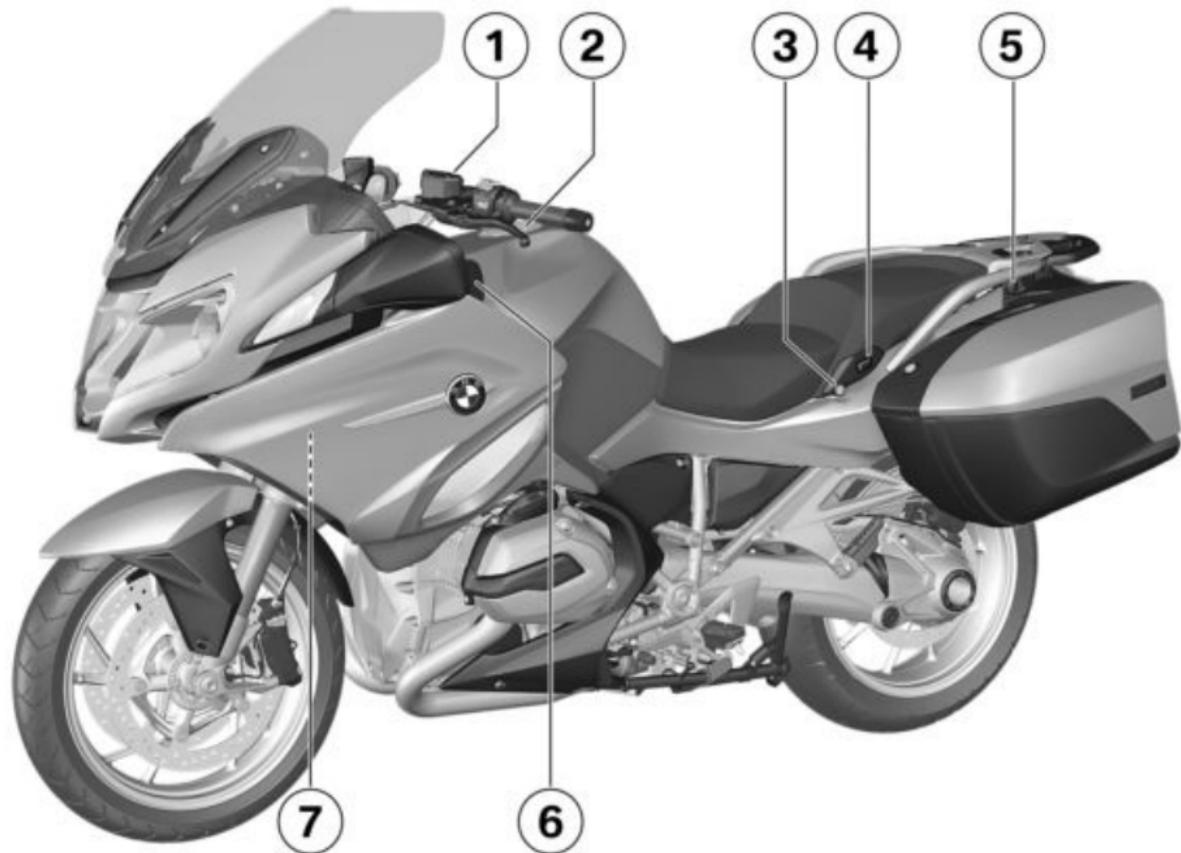
## Notice concerning current status

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. For this reason, some aspects of your motorcycle may vary from the descriptions in this Rider's Manual. In addition, BMW Motorrad cannot guarantee the total absence of errors. For this reason BMW is unable to recognize any claims stemming

from the information, illustrations and descriptions in this manual.

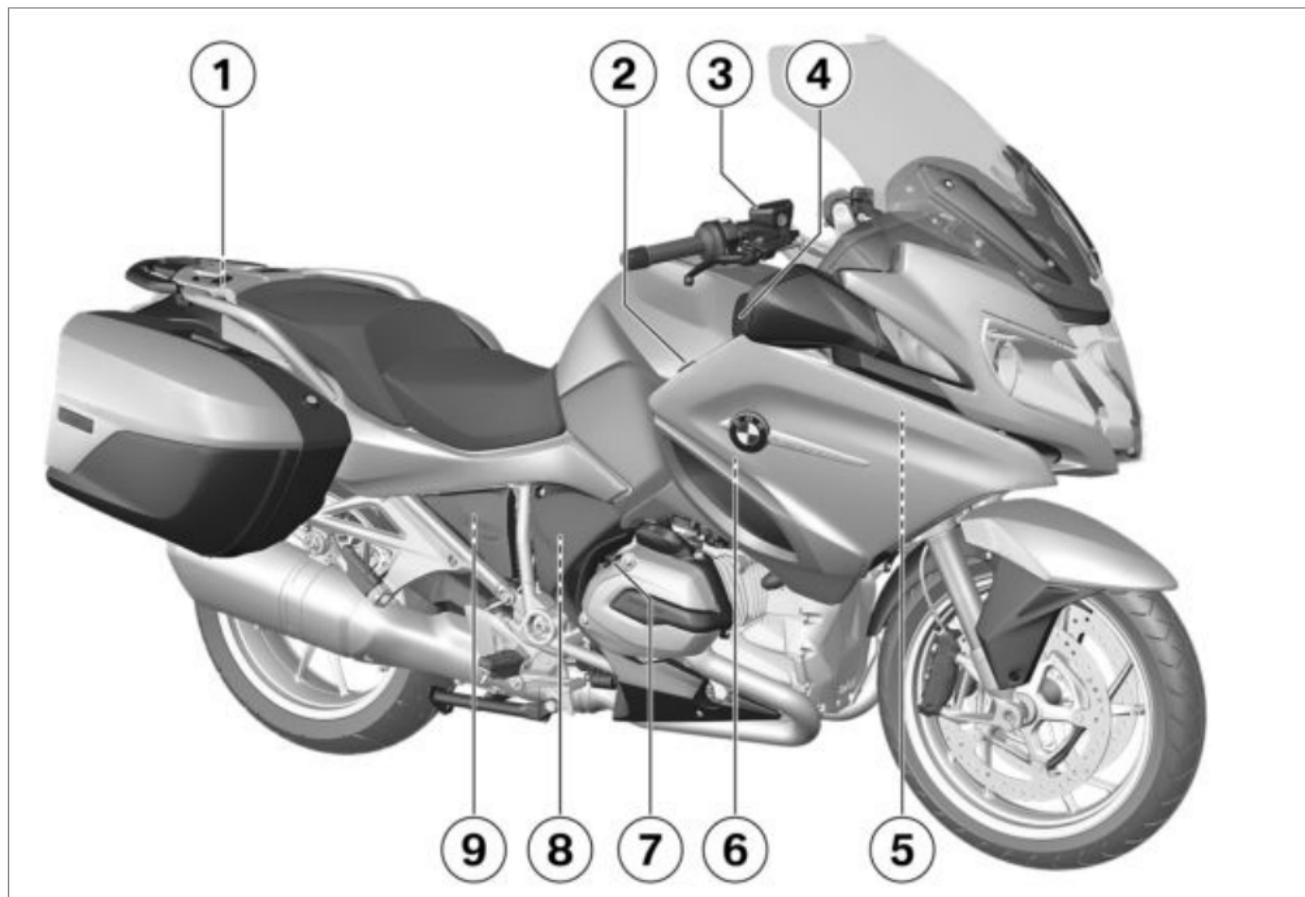
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## General view, left side

- 1 Clutch fluid reservoir  
( 133)
- 2 Fuel filler opening  
( 105)
- 3 Seat lock ( 75)
- 4 Passenger seat heater  
( 74)
- 5 2nd power socket
- 6 Left-hand stow compartment ( 79)
- 7 Payload table  
Tire inflation pressure table

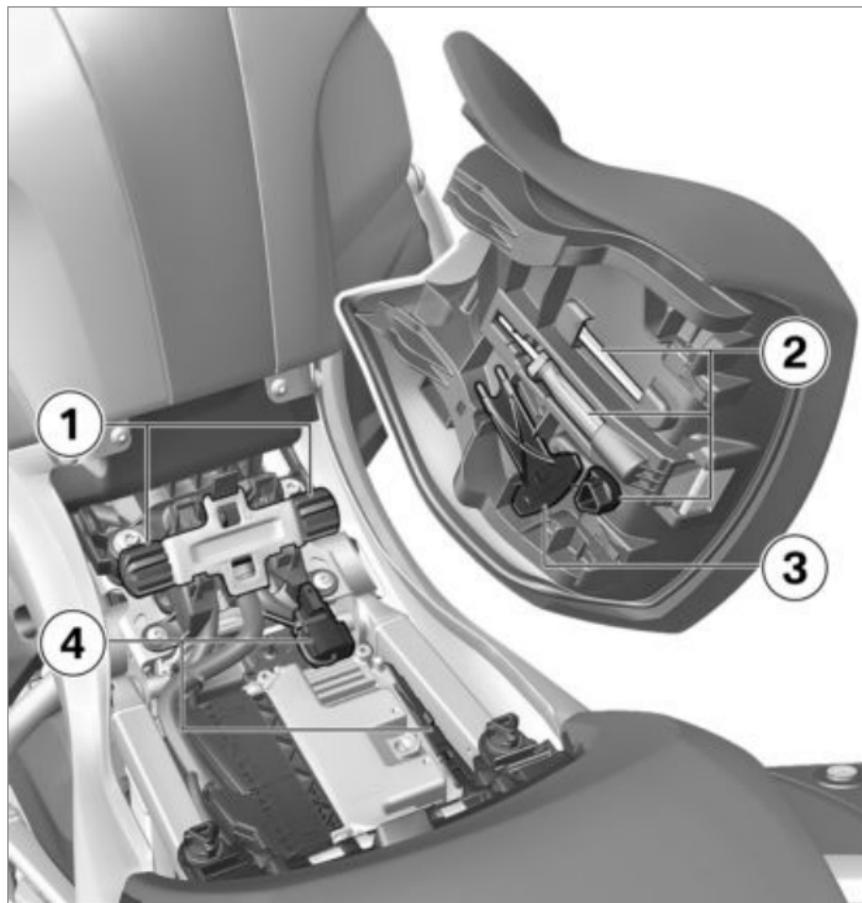


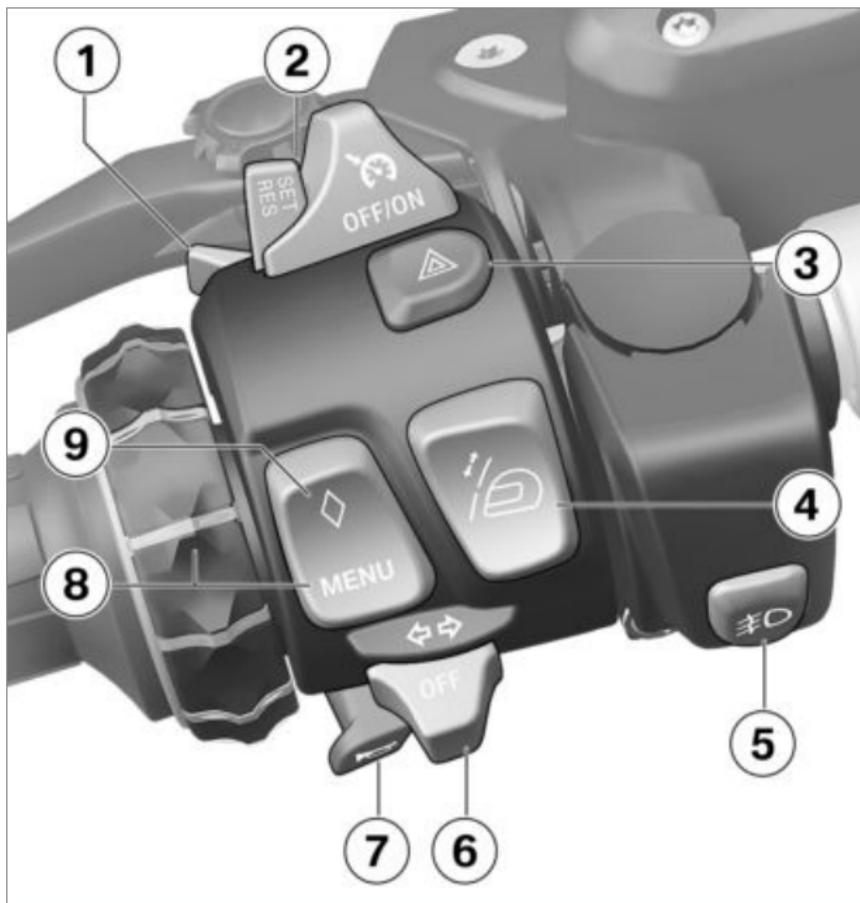
## General view, right side

- 1 Rider's Manual (US Model)
- 2 Power socket (➡ 162)
- 3 Brake-fluid reservoir, front  
(➡ 131)
- 4 Right storage compartment  
(➡ 79)
- 5 Vehicle Identification Number (at fork bearing)  
Data plate (at fork bearing)
- 6 Coolant level indicator (behind side panel) (➡ 133)
- 7 Oil fill location (➡ 128)
- 8 Behind the engine spoiler:  
Battery (➡ 153)  
Positive battery connection point (➡ 151)  
Diagnostic connector  
(➡ 158)
- 9 Rear brake fluid reservoir (behind side fairing)  
(➡ 132)

## Underneath seat

- 1 Adjuster for the rider's seat height (➡ 76)
- 2 Standard tool kit (➡ 126)
- 3 Tool for adjusting spring load (➡ 89)
- 4 Fuses (➡ 156)

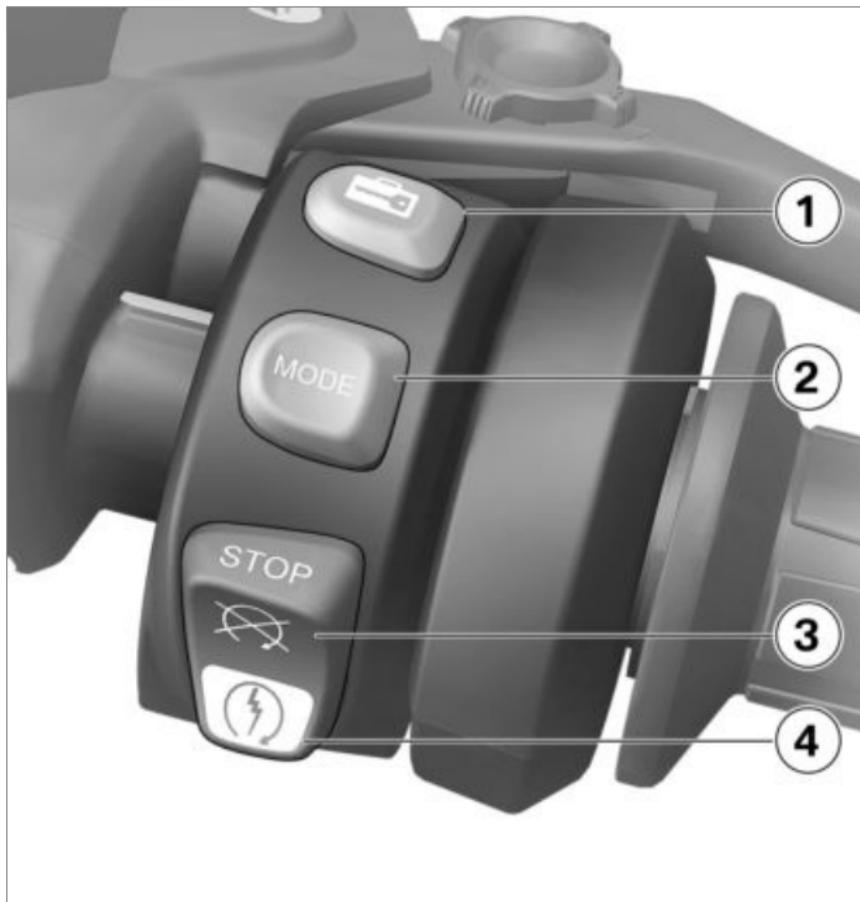




## Multifunction switch, left

- 1 High beam and headlight flasher (→ 54)
- 2 Cruise control (→ 67)
- 3 Hazard warning lights system (→ 55)
- 4 Windshield adjustment (→ 86)
- 5 Additional headlight (→ 55)
- 6 Turn indicators (→ 56)
- 7 Horn

- 8** Multi-Controller and MENU button  
Multifunction display (▣▣▣▣▶ 56)  
ASC (▣▣▣▣▶ 63)  
– with riding modes Pro<sup>OE</sup>  
DTC (▣▣▣▣▶ 63)  
– with Dynamic ESA<sup>OE</sup>  
D-ESA (▣▣▣▣▶ 64)  
– with audio system<sup>OE</sup>  
Audio system (see corresponding rider's manual)
- 9** Menu Favorite (▣▣▣▣▶ 60).



## Multifunction switch, right

- 1 – with central locking system<sup>OE</sup>  
Locking (➡ 80).
- 2 Riding mode (➡ 65)
- 3 Emergency on/off switch (kill switch) (➡ 53)
- 4 Starting engine (➡ 96)

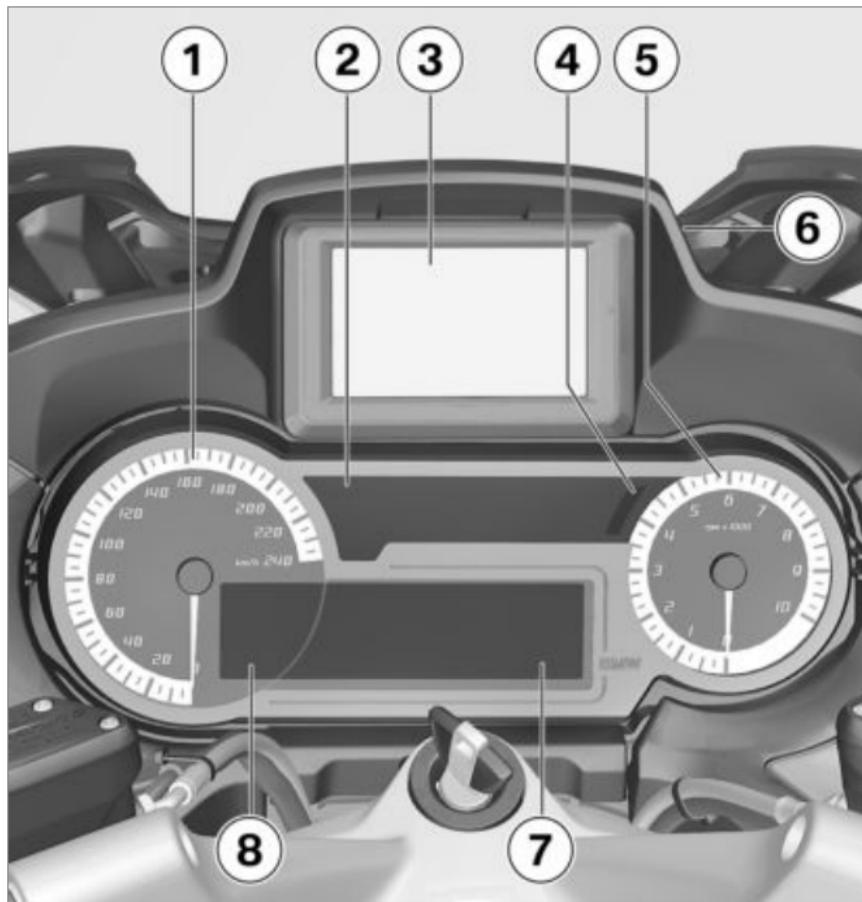
## Instrument cluster

- 1 Speedometer
- 2 Indicator and warning lights (►► 20)
- 3 Navigation system (►► 168)
- 4 Ambient light sensor (for brightness adjustment of instrument lighting)
- 5 Tachometer
- 6 Release for navigation slot (►► 168)
- 7 Multifunction display (►► 23)
- 8 Tripmeter (►► 62)



### NOTICE

The brightness of the indicator and warning lights, the display and the instrument needle and gage lighting is adapted automatically to suit ambient brightness. ◀

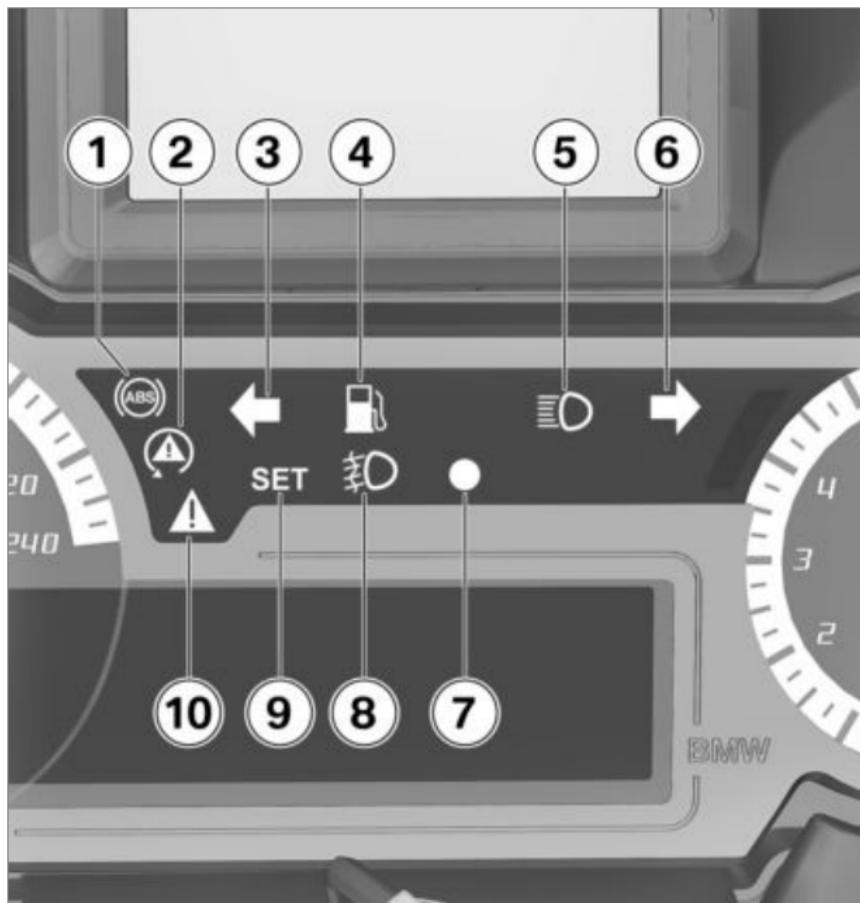


## Displays

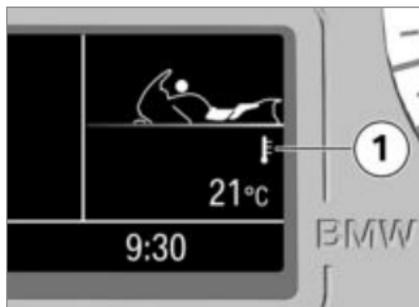
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## Indicator and warning lights

- 1 ABS (➡ 37)
- 2 ASC (➡ 37)  
– with riding modes Pro<sup>OE</sup>  
DTC (➡ 38)
- 3 Turn indicator, left
- 4 Fuel reserve (➡ 40)
- 5 High beam
- 6 Turn indicator, right
- 7 DWA (➡ 71)  
Indicator light for radio-  
operated key (➡ 48)
- 8 Additional headlight  
(➡ 55)
- 9 Cruise control (➡ 67)
- 10 General warning light, in  
conjunction with warn-  
ing symbols on display  
(➡ 24)



## Meaning of symbols



Meaning of the symbols at position **1**:

-  Average fuel consumption since last reset (➡ 61)
-  Current fuel consumption
-  Range with fuel quantity currently on board (➡ 42)

 Average speed since last reset (➡ 61)

 Ambient temperature (➡ 42)

– with Tire Pressure Monitor (TPM)<sup>OE</sup>

 Tire pressures (➡ 43)

 Stopwatch (➡ 61)

 Travel times (➡ 62)

 Date (display mode depends on the time format selected) (➡ 60)

 Oil level (➡ 42)

 Vehicle voltage



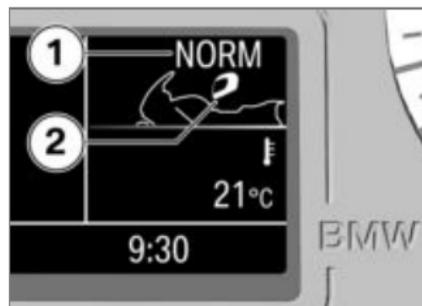
**1** Heated grips turned on

– with seat heating<sup>OE</sup>

**2** Rider's seat heating turned on

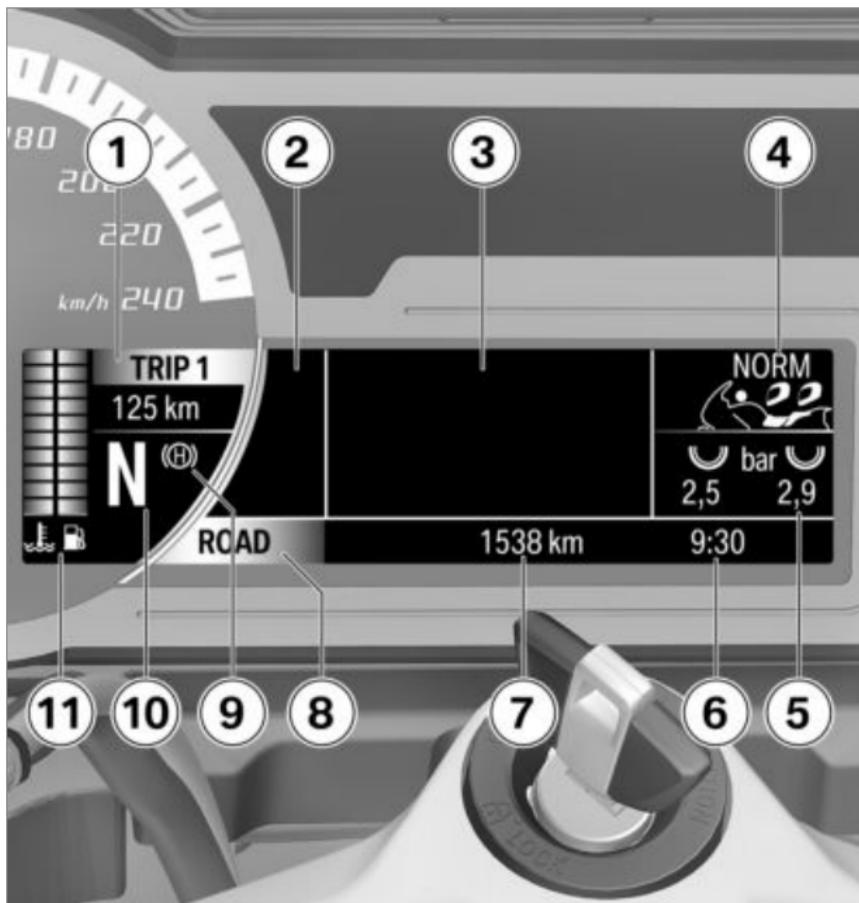
**3** Passenger seat heating turned on

– with Dynamic ESA<sup>OE</sup>



**1** Damping

**2** Load



## Multifunction display

- 1 Trip odometer (➡ 62)
- 2 Warning symbols (➡ 24)
- 3 Menu panel (➡ 56)  
Audio system
- 4 Seat heating (➡ 73)  
Heated handlebar grips (➡ 73)  
– with Dynamic ESA<sup>OE</sup>  
Dynamic ESA Adjustment options (➡ 64)
- 5 Onboard computer (➡ 61)  
– with Tire Pressure Monitor (TPM)<sup>OE</sup>  
Tire pressure
- 6 Clock (➡ 60)
- 7 Odometer
- 8 Riding mode (➡ 65)
- 9 Hill Start Control (➡ 69)
- 10 Gear indicator display, "N" indicates "neutral".
- 11 Coolant temperature  
Fuel level

## Warning lights

### Display

Warnings are displayed with appropriate warning lamps.



Warnings for which there is no specific individual warning lamp are indicated by the universal warning lamp **1** in conjunction with a warning symbol such as **2** shown on the multifunction display. The universal warning lamp lights up in either yellow or red depending on the urgency of the warning.

Up to four warning symbols can be displayed at any given time. The universal warning lamp lights up for the most urgent warning.

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

## Overview of warning indicators

Indicator and warning lights	Display text	Meaning
	 appears in the display	Outside temperature warning (→ 30)
 lights up yellow	 appears on the display	EWS active (→ 30)
 lights up yellow	 appears on the display	Radio-operated key outside reception range (→ 30)
 lights up yellow		Replace battery of radio-operated key (→ 31)
 lights up red	Temperature reading turns red.	Coolant temperature too high (→ 31)
	 appears on the display	Engine-oil level too low (→ 31)
 lights up yellow	 appears on the display	Engine fault (→ 31)
 flashes yellow	 appears on the display	Severe engine fault (→ 32)

## Indicator and warning lights

## Display text

## Meaning

	lights up yellow		appears in the display	Front light failure (→ 32)
	lights up yellow		appears in the display	Rear light failure (→ 33)
	lights up yellow		appears in the display	Light failure (→ 33)
			appears on the display	DWA battery charge level low (→ 33)
	lights up yellow		appears on the display	DWA battery drained (→ 33)
			appears on the display.	Onboard system voltage low (→ 34)
	lights up yellow		appears on the display.	Onboard system voltage critical (→ 34)
	lights up red		appears on the display.	Battery charging voltage insufficient (→ 34)

## Indicator and warning lights

## Display text

## Meaning

 flashes red	 + tire pressure in red	Tire pressure is outside the approved tolerance range (►► 35)
 lights up yellow	 + "--" or "-- --" is indicated	Sensor faulty or system fault (►► 35)
	 + "--" or "-- --" is indicated	Transmission fault (►► 36)
 lights up yellow	 appears on the display.	Battery of the tire pressure sensor weak (►► 37)
 flashes		ABS self-diagnosis routine not completed (►► 37)
 lights up		ABS error (►► 37)
 flashes rapidly		ASC intervention (►► 37)
 flashes rapidly		DTC intervention (►► 38)

## Indicator and warning lights

## Display text

## Meaning

	flashes slowly		ASC self-diagnosis not completed (→ 38)
	flashes slowly		DTC self-diagnosis not completed (→ 38)
	lights up		ASC switched off (→ 39)
	lights up		DTC switched off (→ 39)
	lights up		ASC error (→ 39)
	lights up		DTC error (→ 39)
	lights up yellow		appears on the display D-ESA fault (→ 39)
			appears on the display Central locking locked (→ 40)

## Indicator and warning lights

## Display text

## Meaning

		The gear indicator flashes.	The gear has not been programmed (▬▬▬▬➔ 40)
 briefly shows yellow		appears on the display	Service overdue (▬▬➔ 40)
 lights up		Fuel-level reading turns yellow	Fuel down to reserve (▬▬▬▬➔ 40)

## Outside temperature warning



appears on the display.

Possible cause:



The outside temperature measured on the motorcycle is less than:

Approx. 37 °F (Approx. 3 °C)



**WARNING**

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

Accident hazard

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

## EWS active



shows yellow.



appears on the display.

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.
- Have the defective key replaced, preferably by an authorized BMW Motorrad retailer.

## Radio-operated key outside reception range

– with Keyless Ride<sup>OE</sup>



shows yellow.



appears on the display.

Possible cause:

Communication between the radio-operated key and the engine electronics is disrupted.

- Check battery in radio-operated key.
  - with Keyless Ride<sup>OE</sup>
- Replace battery of radio-operated key (▶▶▶ 53).
- Use an emergency key or a completely drained remote control key to continue driving.
  - with Keyless Ride<sup>OE</sup>
- Battery of radio-operated key is drained, emergency key is not available (▶▶▶ 51).
- Radio-operated key lost, emergency key available (▶▶▶ 50).
- Should the warning symbol appear while driving, keep calm.

Driving can be continued; the engine will not switch off.

- Have the defective radio-operated key replaced by an authorized BMW Motorrad retailer.

## Replace battery of radio-operated key

 shows yellow.

 The battery symbol is displayed.

Possible cause:

- The battery for the radio-operated key is no longer charged to full capacity. Operation of the radio-operated key is only ensured for a limited time.  
– with Keyless Ride<sup>OE</sup>
- Replace battery of radio-operated key (▣▣▣ 53).

## Coolant temperature too high

 shows red.

The temperature reading turns red.

 **ATTENTION**

## Riding with overheated engine

Engine damage

- Be sure to observe the measures listed below.◀

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 fault rectified as quickly as possible by an authorized

workshop, preferably an authorized BMW Motorrad retailer.

## Engine-oil level too low

 appears on the display.

Possible cause:

The electronic oil level sensor has detected that the engine's oil level is too low. At next refueling stop:

- Check engine oil level (▣▣▣ 128).  
If oil level is too low:
- Topping up engine oil (▣▣▣ 129).

## Engine fault

 shows yellow.

 appears on the display.

Possible cause:

The engine control unit has diagnosed a fault.



## WARNING

### Unusual handling when engine is in emergency operating mode

Accident hazard

- Adapt riding style: avoid rapid acceleration and passing maneuvers. ◀
- If you continue to ride be prepared for unusual engine behavior (low power, poor response, abrupt stalling, etc.).
- Have the malfunction corrected as soon as possible at an authorized service facility, preferably an authorized BMW Motorrad Retailer.

### Severe engine fault



flashes yellow.



appears on the display.

Possible cause:

The engine control unit has diagnosed a severe fault.



## WARNING

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

Accident hazard

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

- If you continue to ride be prepared for unusual engine behavior (low power, poor response, abrupt stalling, etc.).
- Have the malfunction corrected as soon as possible at an authorized service facility, preferably an authorized BMW Motorrad Retailer.

### Front light failure



shows yellow.



appears on the display.

Possible cause:

Low-beam headlight, high-beam headlight, parking light or front turn indicator defective.

The low-beam headlight or one of the LED turn indicators must be replaced.

- Please contact a specialist service facility, preferably an

authorized BMW Motorrad Retailer.

- Replacing high-beam headlight light source (►►► 146).

## Rear light failure



shows yellow.



appears on the display.

Possible cause:

Rear light, brake light or rear flashing turn indicator defective. The LED tail light must be replaced.

- Please contact a specialized workshop, preferably an authorized BMW Motorrad retailer.

## Light failure



shows yellow.



appears on the display.

Possible cause:

A combination of light failures has occurred.

- Please contact a specialized workshop, preferably an authorized BMW Motorrad retailer.

## DWA battery charge level low

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



appears on the display.



### NOTICE

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

Possible cause:

The DWA battery no longer has its full charging capacity. The operation of the DWA with the vehicle battery disconnected is only guaranteed for a limited time.

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

## DWA battery drained

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



shows yellow.



appears on the display.



### NOTICE

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

Possible cause:

The DWA battery no longer has any charging capacity. Operation of the DWA is no longer guaranteed when the vehicle battery is disconnected.

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

### **Onboard system voltage low**



appears on the display. Generator power is only just sufficient to supply all consumers and charge the battery.

Possible cause:

Too many consumers switched on. On-board system voltage tends to drop particularly at low engine rpm and when the engine is idling.

- When riding at low engine revs, switch off all electrical equipment that is not necessary

for road safety (e.g. heated body warmer or supplementary headlight).

### **Onboard system voltage critical**



shows yellow.



appears on the display.

Generator power is no longer sufficient to supply all consumers and charge the battery. In order to ensure that the engine can be started and the motorcycle ridden, the onboard electronics switch off the electricity supply to the onboard sockets and the auxiliary headlights. In extreme cases the seat heating and the grip heating might also be shut down.

Possible cause:

Too many consumers switched on. On-board system voltage tends to drop particularly at low engine rpm and when the engine is idling.

- When riding at low engine revs, switch off all electrical equipment that is not necessary for road safety (e.g. heated body warmer or supplementary headlight).

### **Battery charging voltage insufficient**



shows red.



appears on the display.

## **WARNING**

### **Discharged battery causes various motorcycle systems to fail, such as the lighting, engine or ABS**

Accident hazard

- Do not continue riding.◀

The battery is not being charged. If you continue driving, the motorcycle electronics will discharge the battery.

Possible cause:

Defect in alternator or the alternator drive assembly, or the voltage regulator fuse has been triggered.

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

### **Tire pressure is outside the approved tolerance range**

– with Tire Pressure Monitor (TPM)<sup>OE</sup>



flashes red.



+ the critical tire pressure shows red.

Possible cause:

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

- Check tire for damage and suitability for continued use.
- If it is still possible to drive with tire:
- Correct tire inflation pressure at the next opportunity.



## **NOTICE**

Before adjusting the tire inflation pressure, observe the information

on temperature compensation and on inflation pressure adjustment in the chapter "Technology in detail".◀

- Have the tire checked for damage at an authorized service facility, preferably an authorized BMW Motorrad retailer.

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

- Do not continue riding.
- Contact roadside service.

### **Sensor faulty or system fault**

– with Tire Pressure Monitor (TPM)<sup>OE</sup>



shows yellow.



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

Possible cause:

Wheels without TPC/RDC sensors are mounted.

- Retrofit wheel set with TPC/RDC sensors.

Possible cause:

1 or 2 TPC/RDC sensors have failed or a system fault has occurred.

- Have fault eliminated at a specialist service facility, 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.

## Transmission fault

- with Tire Pressure Monitor (TPM)<sup>OE</sup>



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

Possible cause:

The motorcycle has not reached the minimum speed (min 120).



TPC/RDC sensor is not active

min 19 mph (min 30 km/h)  
(The TPC/RDC sensor does not transmit a signal to the motorcycle until this minimum speed has been exceeded.)

- Watch the TPC/RDC display at higher speed. A continuous error is only present if the general warning lamp also lights up. In this case:
- Have fault eliminated at a specialist service facility, preferably

an authorized BMW Motorrad retailer.

Possible cause:

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

- Observe the TPC/RDC display in a different environment. A continuous error is only present if the general warning lamp also lights up. In this case:
- Have fault eliminated at a specialist service facility, preferably an authorized BMW Motorrad retailer.

## Battery of the tire pressure sensor weak

– with Tire Pressure Monitor (TPM)<sup>OE</sup>



shows yellow.



appears on the display.



### NOTICE

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

Possible cause:

The battery for the tire inflation pressure sensor is no longer charged to full capacity. Operation of the tire inflation pressure control is only ensured for a limited time.

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

## ABS self-diagnosis routine not completed



flashes.

Possible cause:



ABS self-diagnosis routine not completed

ABS is not available, as the self-diagnosis routine was not completed. (The motorcycle must reach a specified minimum speed before the system can check operation of the wheel speed sensors: 3 mph (5 km/h))

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

## ABS error



lights up.

Possible cause:

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

- It is possible to continue riding the motorcycle if you make allowance for the ABS failure. You should also take account of the additional information on situations that can lead to an ABS fault (➡ 113).
- Have the malfunction corrected as soon as possible at an authorized workshop, preferably an authorized BMW Motorrad retailer.

## ASC intervention



flashes rapidly.

ASC has detected instability at the rear wheel and responded by reducing the torque.

The indicator and 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.

### DTC intervention

– with riding modes Pro<sup>OE</sup>



flashes rapidly. DTC has detected instability at the rear wheel and responded by reducing the torque. The indicator and warning light flashes longer than the DTC 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



flashes slowly.

Possible cause:



ASC self-diagnosis routine not completed

ASC is not available because the self-diagnosis routine was not completed. (The motorcycle must reach a specified minimum speed before the system can check operation of the wheel sensors: min 3 mph (min 5 km/h))

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

### DTC self-diagnosis not completed

– with riding modes Pro<sup>OE</sup>



flashes slowly.

Possible cause:



DTC self-diagnosis not completed

The DTC function is not available, as the self-diagnosis function has not been completed. (To check wheel speed sensors, motorcycle must reach a minimum speed with engine running: min 3 mph (min 5 km/h))

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

## ASC switched off

 lights up.

Possible cause:

The ASC system has been deactivated by the rider.

- Switch ASC on.

## DTC switched off

– with riding modes Pro<sup>OE</sup>

 lights up.

Possible cause:

The DTC system was deactivated by the rider.

- Turning the DTC function off and on (►►► 63).

## ASC error

 lights up.

Possible cause:

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

- It remains possible to continue riding. It must be noted that the ASC function is not available. You should also take account of the additional information on situations that can lead to an ASC fault (►►► 115).
- Have the malfunction corrected as soon as possible at an authorized workshop, preferably an authorized BMW Motorrad retailer.

## DTC error

– with riding modes Pro<sup>OE</sup>

 lights up.

Possible cause:

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

- It remains possible to continue riding. It must be noted that the DTC function is not available. You should also observe the additional information on situations that can lead to a DTC fault (►►► 117).
- Have the malfunction corrected as soon as possible at an authorized service facility, preferably an authorized BMW Motorrad Retailer.

## D-ESA fault

 shows yellow.

 appears on the display.

Possible cause:

The D-ESA control unit has detected a fault. Motorcycle damping is in this condition very firm and riding is rather uncomfortable - in particular on rough roads.

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

### Central locking locked

– with central locking system<sup>OE</sup>



The locked symbol appears on the display.

All locks in the central locking system are locked.

### The gear has not been programmed

– with gearshift assistant Pro<sup>OE</sup>



The gear indicator flashes.

The shift assistant Pro has no function.

Possible cause:

– with gearshift assistant Pro<sup>OE</sup>

The gear sensor has not been fully programmed.

- Engage idle N and let the engine run for at least 10 seconds while standing to program the idle gear.
  - Shift through all gears by operating the clutch and ride in each engaged gear for at least 10 seconds.
  - » The gear indicator stops flashing after the gear sensor has been successfully programmed.
- After the gear sensor is fully programmed, the shift assistant Pro functions as described (▮▮▮▮▶ 122).

- If the programming process is not successful, have the fault eliminated at a specialist workshop, preferably an authorized BMW Motorrad retailer.

### Service overdue



appears on the display.



General warning light briefly shows yellow after the Pre-Ride-Check.

Possible cause:

A necessary service has not been carried out.

- Have servicing carried out as quickly as possible by a specialist workshop, preferably an authorized BMW Motorrad retailer.

### Fuel down to reserve



lights up.

Fuel-level reading turns yellow.

## WARNING

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

Accident hazard, damage to catalytic converter

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

Possible cause:

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



Reserve fuel quantity

Approx. 1.1 gal (Approx. 4 l)

- Refueling procedure (▶▶ 105).

## Service display



If a service is due, for a brief period after the pre-ride check the service symbol appears on the display and the

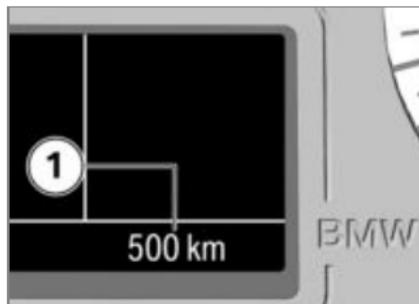
service-due date shows instead of the odometer reading.



If the service is overdue the General warning light briefly shows yellow and the service symbol lights up continuously.



If the countdown to the next service is less than one month, service-due date **1** appears on the display.



If the vehicle covers high annual mileages then shorter service intervals may be required. If the countdown distance to the early service is less than 621 mls (1000 km), countdown distance **2** appears on the display.



## NOTICE

If the service display appears more than a month before the service date, the current day's date must be reset in the instrument cluster. This situa-

tion can occur if the battery was disconnected. ◀

## Cruising range



The range indicates the travel distance available with the remaining fuel. The average consumption employed to calculate the remaining travel range does not appear in the display and may vary from the indicated average consumption. You must put at least five liters of fuel into the fuel tank for the new level to be registered correctly. If the sensor cannot register the new level the range display cannot be updated. If the motorcycle is standing on its side stand, the motorcycle's inclined position will prevent the fuel level from being registered accurately. For this reason travel range is only calculated with the side stand retracted.



## NOTICE

The determined range is an approximate reading. BMW Motorrad therefore recommends that you do not try to use the full range before refueling. ◀

## Oil level indicator



The oil-level indicator gives you an indication of the engine oil level.

The conditions for the oil level indicator are as follows:

- Engine at operating temperature.
- Engine idling for at least ten seconds.
- Side stand retracted.
- Motorcycle is vertical.

The readings mean:

OK: Oil level correct.

CHECK !: Check oil level during next refueling stop.

– – –: No measurement possible (above-mentioned conditions not met).

## Ambient temperature



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.



If the ambient temperature drops below the borderline range, this warning of possible black-ice formation appears. The

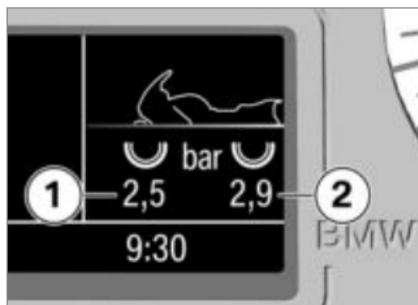
display automatically switches from any other mode to the temperature reading when the temperature drops below this threshold for the first time.

 Limit range for outside temperature

Approx. 37 °F (Approx. 3 °C)

## tire pressures

– with Tire Pressure Monitor (TPM)<sup>OE</sup>



 The tire pressures are shown adjusted for temperature on the multifunction display and are always relative to the following tire air temperature:

68 °F (20 °C)

The left value **1** represents the tire pressure of the front wheel; the right value **2** the tire pressure of the rear wheel. Immediately after switching on the ignition, "-- --" is indicated.

 TPC/RDC sensor is not active

min 19 mph (min 30 km/h)  
(The TPC/RDC sensor does not transmit a signal to the motorcycle until this minimum speed has been exceeded.)

If the pressure in a tire drops to a critical level, the corresponding display shows red.

 The tire warning symbol also appears on the display.

 The general warning light flashes red.

Further information on BMW Motorrad TPC/RDC can be found starting from page  120).



## Operation

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## Steering and ignition lock

### Keys

You are provided with 2 ignition keys.

Should you lose your keys, refer to the information regarding the electronic immobilizer (EWS) (►► 47).

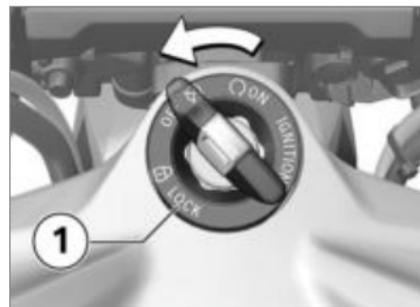
### Single-key locking

- Steering and ignition lock
- Pannier lock
- Stow compartment lock
- Fuel filler cap
- Seat lock
- Storage compartment
  
- with topcase<sup>OA</sup>
- Topcase

- with audio system<sup>OE</sup>
- Audio stow compartment

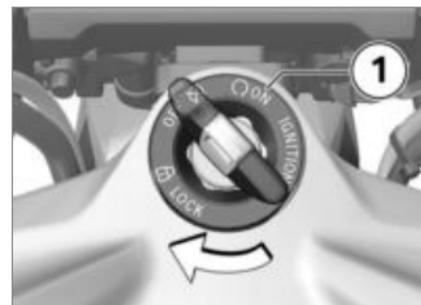
### Locking handlebars

- Turn handlebars to left.



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

### Switching on ignition



- Insert key into ignition steering lock and turn it to position **1**.
  - » Parking light and all function circuits are switched on.
  - » Pre-Ride-Check in progress (►► 97)
  - » ABS self-diagnosis is performed (►► 98)
  - » ASC self-diagnosis in progress (►► 99)
- with riding modes Pro<sup>OE</sup>
  - » DTC self-diagnosis is performed. (►► 99)◀

## Welcome light

- Switch on the ignition.
  - » The parking lamp briefly lights up.
  - with LED auxiliary headlight<sup>OA</sup>
  - » The supplementary LED headlights briefly light up.<

## Switch off ignition



- Turn key to position **1**.
  - » After the ignition is switched off, the instrument cluster remains switched on for a short period of time and indicates possibly present fault codes.
  - » Handlebars not locked.

- » Electrically powered accessories remain operational for a limited period of time.
- » Battery can be recharged via onboard socket.
- » Key can now be removed.
- with LED auxiliary headlight<sup>OA</sup>
- The supplementary LED headlights switch off shortly after the ignition is switched off.<

## EWS Electronic immobilizer

The motorcycle's electronic circuitry monitors the data stored in the ignition key through a ring antenna incorporated in the steering and ignition lock. The engine management system does not enable engine starting until this key has been 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 warning with the key symbol appears in the multifunction display. Always store further vehicle keys separately from the ignition key.<

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

keys are part of an integrated security system, so the retailer is under an obligation to check the legitimacy of all applications for replacement/extra keys.

## Ignition with Keyless Ride

– with Keyless Ride<sup>OE</sup>

### Keys

#### NOTICE

The indicator light for the radio-operated key flashes as long as the radio-operated key is being searched for.

If the radio-operated key or the emergency key is detected, it goes out.

If the radio-operated key or the emergency key is not detected, it lights up briefly. ◀

You are provided with one radio-operated key and one emergency

key. Should you lose your keys, refer to the information regarding the electronic immobilizer (EWS) (▶▶ 47).

The ignition, tank filler cap and anti-theft alarm system are controlled with the radio-operated key. The seat lock, storage compartment, Topcase and case can be operated manually.

#### NOTICE

When the range of the radio-operated key is exceeded (e.g. in case or Topcase), the motorcycle cannot be started and the central locking system cannot be locked/unlocked.

If the range is exceeded, the ignition is switched off after approx. 1.5 minutes and the central locking system is **not** locked.

It is advisable to carry the radio-operated key directly on your person (e.g. in a jacket pocket)

and to also carry the emergency key as an alternative. ◀

 Range of Keyless Ride radio-operated key

Approx. 3.3 ft (Approx. 1 m)

## Locking handlebars Requirement

The handlebars are turned to the left. Radio-operated key is within reception range.



- Press and hold button **1**.
- » Steering lock audibly locks.

- » Ignition, lights and all electrical circuits switched off.
- To unlock the steering lock, briefly press button **1**.

## Switching on ignition

### Requirement

Radio-operated key is within reception range.



- The ignition can be activated in **two** ways.

### Version 1:

- Briefly press button **1**.
- » Parking light and all function circuits are switched on.

- with LED auxiliary headlight<sup>OA</sup>
  - » LED additional headlights are switched on.<
  - » Pre-Ride-Check in progress (▶▶▶ 97)
  - » ABS self-diagnosis is performed (▶▶▶ 98)
  - » ASC self-diagnosis in progress (▶▶▶ 99)
- with riding modes Pro<sup>OE</sup>
  - » DTC self-diagnosis is performed. (▶▶▶ 99)<

### Version 2:

- Steering lock is locked; press and hold button **1**.
- » Steering lock is unlocked.
- » Parking lights and all function circuits switched on.
- » Pre-Ride-Check in progress (▶▶▶ 97)
- » ABS self-diagnosis is performed (▶▶▶ 98)
- » ASC self-diagnosis in progress (▶▶▶ 99)

- with riding modes Pro<sup>OE</sup>
  - » DTC self-diagnosis is performed. (▶▶▶ 99)<

## Switch off ignition

### Requirement

Radio-operated key is within reception range.



- The ignition can be deactivated in **two** ways.

### Version 1:

- Briefly press button **1**.
- » Light is switched off.
- » Handlebars are not locked.

**Version 2:**

- Turn handlebars to left.
- Press and hold button **1**.
  - » Light is switched off.
  - » Steering lock is locked.

**EWS Electronic immobilizer**

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

**NOTICE**

A further key attached to the same ring as the radio-operated key used to start the engine could "irritate" the electronics, in which case the enabling signal for starting is not issued. The

warning with the key symbol appears in the multifunction display. Always store further vehicle keys separately from the radio-operated key. ◀

If you lose a radio-operated 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.

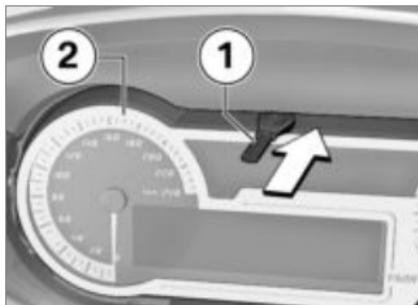
The engine can no longer be started using a disabled radio-operated key; however, a disabled radio-operated key can be enabled again.

Emergency and spare keys are only available through an authorized BMW Motorrad retailer. As the radio-operated keys are part of an integrated security system, the retailer is under an obligation to check your legitimacy.

**Radio-operated key lost, emergency key available****Requirement**

The emergency key is available.

- Park motorcycle, ensuring that support surface is firm and level.
- Should you lose your keys, refer to the information regarding the electronic immobilizer **(EWS)**.
- Should you lose the radio-operated key during a trip, the vehicle can be started using the emergency key.



- Insert emergency key **1** into gap **centrally** above auxiliary instrument **2** (arrow).



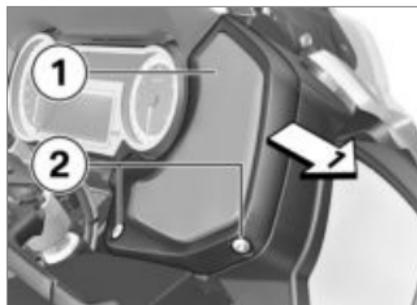
Period in which the engine must be started. Then unlocking must be repeated.

30 s

- » Pre-Ride Check in progress.
- Key has been detected.
- Engine can be started.
- Starting the engine (→ 96).

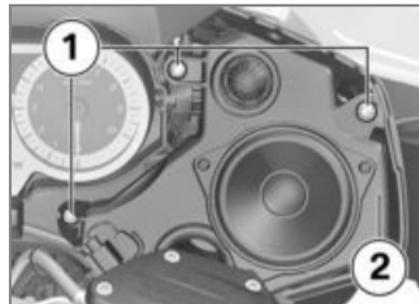
## Battery of radio-operated key is drained, emergency key is not available

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

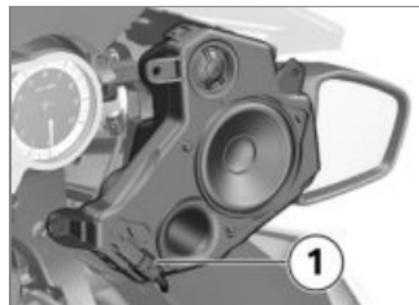


- Remove screws **2**.
- Remove speaker cover **1** sideways to right.

– with audio system<sup>OE</sup>



- Remove screws **1**.
- Carefully remove speaker unit **2**, paying attention to the electrical connector.



- Disconnect the plug **1**.<



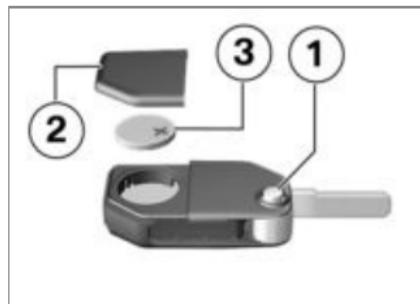
## Replace battery of radio-operated key

If the key fob transmitter fails to react when the button is pressed briefly or is pressed and held:

- The battery of the key fob transmitter no longer has its full charging capacity.
- » Replace battery.



The battery symbol is displayed.



- Press button **1**.
- » Key bit folds open.
- Press battery cover **2** upward.
- Remove battery **3**.

- Dispose of the old battery in accordance with legal regulations. Do not dispose of the battery in the household waste.



### ATTENTION

#### Unsuitable or improperly inserted batteries

Component damage

- Use a battery compliant with the manufacturer's specifications.
- When inserting the battery, make sure that the polarity is correct. ◀
- Insert the new battery with the positive side up.



Battery type

for Keyless Ride radio-operated key

CR 2032

- Install seal **1** and battery cover **2**.
- » Red LED in instrument cluster flashes.
- » The key fob transmitter is again ready to be used.

## Emergency on/off switch (kill switch)



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

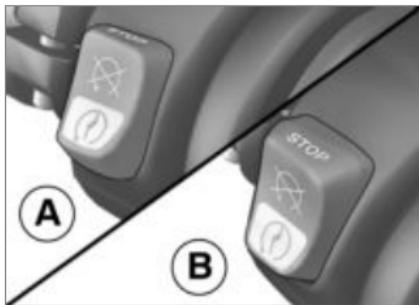
## WARNING

### 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

## Lights

### Parking lamps

The parking lamps come 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.◀

### Lowbeam headlamp

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

## High-beam headlight and headlight flasher



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

## NOTICE

The high-beam headlight can also be switched on when the engine is not running.◀

### Parking light

- Switch off ignition.

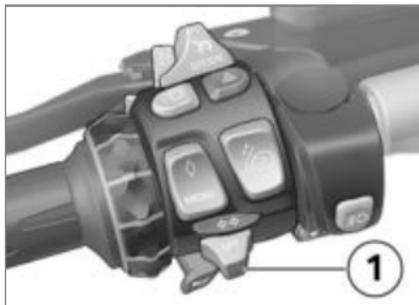


- » Ignition can be switched off.
- To switch off the hazard warning flashers, switch on the ignition as required, then press the button **1** once again.

## 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** into center position to switch off turn indicators.

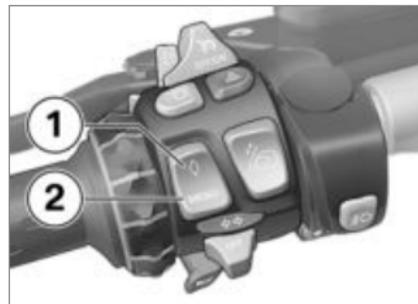


Turn indicator cancellation

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

## Multifunction display

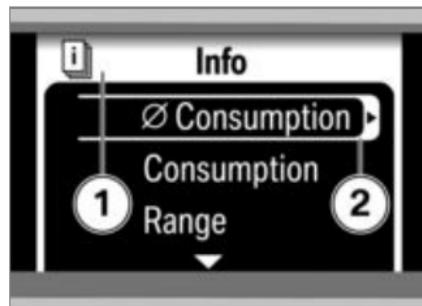
### Selecting menu



Press button **2** to proceed through the sequence of menus, starting with the Dynamic ESA menu. Each successive press of button **2** opens the next menu; the total number of menus depends on the equipment options installed on the motorcycle.

You can also use the button **1** to access your predefined favorite menu directly.

With the exception of the Audio functions, the Settings menu can only be opened while the motorcycle is at a standstill.



The selected menu is displayed in position **1**. The selected sub-menu **2** is marked by a border.

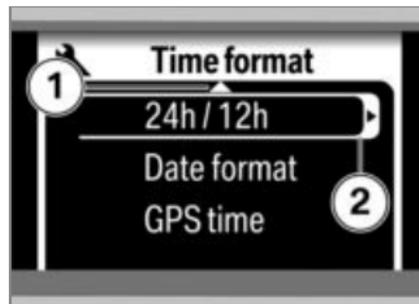
#### NOTICE

A list of all the menus can be found in the separate Quick Reference Guide. ◀

### Selecting menu item

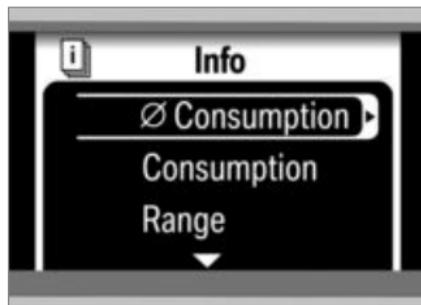


Move the cursor within the menu using the Multi-Controller **1**.



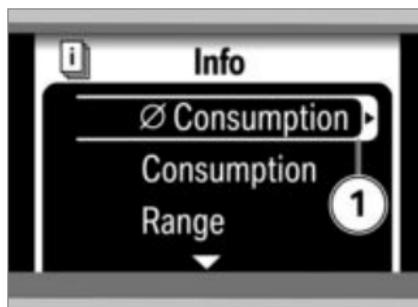
An arrow **1** on the upper or lower edge of the display indicates that by turning the Multi-Controller in the corresponding direction, you can access additional menu items. If the arrow **2** is shown on the cursor, then you can call up a submenu by pressing the Multi-Controller to the right (different meaning for average values and list selection, see (▶▶▶ 58)).

## Setting parameters



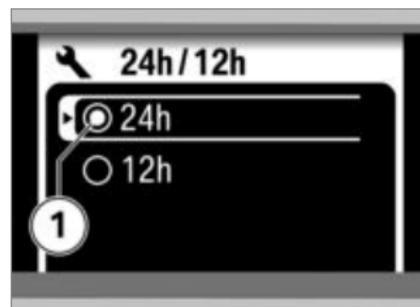
### Direct selection

If you move the cursor to a menu item that requires no other settings, your selection goes active right away.



### Resetting settings

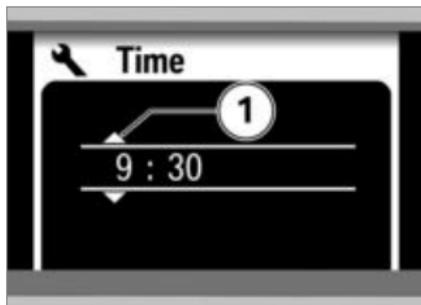
You can reset average values marked with an arrow **1** by long-pressing the Multi-Controller to the right.



### Selecting from a list

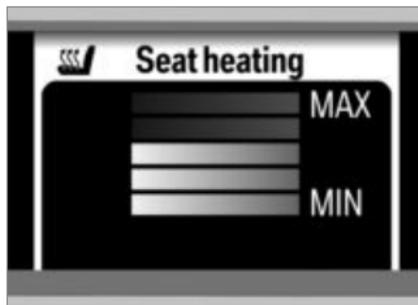
A circle **1** beside each selectable item means that the items are part of a selection list. A circle with a dot indicates the item that is currently selected.

If you want to change the selection, move the cursor to another item in the list and press the Multi-Controller to the right to either activate or deactivate the parameter you selected.



### Setting numerical values

If there are individual or multiple numerical values between the arrows **1**, you can increase the values by turning the Multi-Controller up or reduce the values by turning it down. By pressing the Multi-Controller to the right or left, you can change between the values.



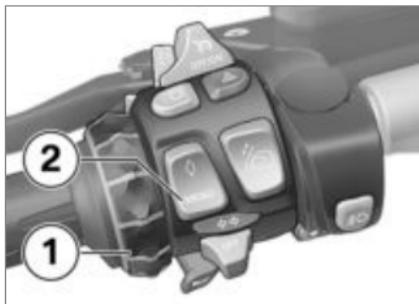
### Setting relative values

A bar indicator enables you to set a value in a range between two limits. Turning the Multi-Controller up increases or turning it down decreases the value to be set.

### Exiting menu



Arrow **1** appears when you are in a submenu.



Pressing the Multi-Controller **1** to the left returns you to the next higher menu; pressing the MENU button **2** returns you to the main menu.

To hide the menus, press the Multi-Controller **1** to the left in a main menu.

### Selecting favorite menu

- Select the main menu of your choice.



- Hold down button **1**.

 The rhomboid symbol is shown on the right next to the selected menu.

» The menu you have selected will subsequently be called up whenever you press button **1**.

### Adapting mode of presentation

- Switch on the ignition.
- Call up the Settings menu and select **User**.

The settings you can choose are as follows:

- Language: display language (German, English, Spanish, Italian, French, Dutch, Portuguese)
- Time format - Format clock: clock in 12-hour format (12 h) or in 24-hour format (24 h)
- Time format - Format date: date in day.month.year format (dd . mm . yy) or in month/day/year format (mm / dd / yy)
- Time format - GPS time: accept the GPS time and GPS date from the built-in navigation system (On), (Off)
- Brightness: brightness of the display and the instruments
- Start logo: show the start logo after the ignition is switched on (On), (Off)
- Initial state: restore the factory defaults (when Re-set! appears on the display, press the Multi-Controller to

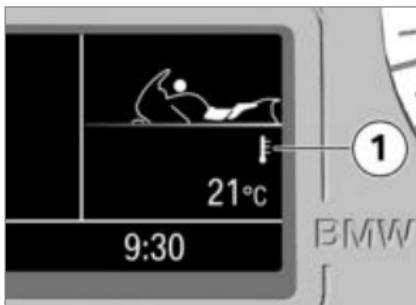
the right and hold it in this position)

- Background: indication on the display when the radio is switched off: Empty: no indication, Logo: logo (RT), Speed ind.: digital speedometer.
- Using the Multi-Controller, make the desired adjustments.

## Onboard computer

### Selecting display readings

- Call up the Info menu and select the item of information of your choice.



The following items of information can be displayed in panel 1:

- ØConsumption: average consumption
- Consumption: current consumption
- Range: range with fuel remaining in the fuel tank
- ØSpeed: average speed
- Temperature: ambient temperature
- Tire pressure: tire pressures
- Stopwatch: stopwatch
- Travel times: travel times

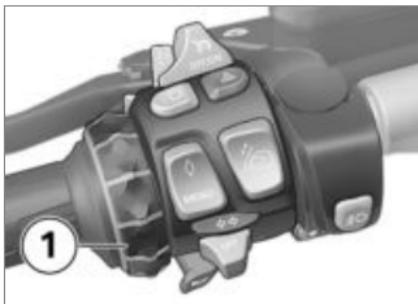
- Date: current date
- Oil level: engine oil level
- Vehicle volt.: vehicle voltage
- Off: no reading

### Resetting average data

- Call up the Info menu and select the average value you want to reset.
- Push the Multi-Controller to the right and hold it in this position until the average value is reset.

### Operating stopwatch

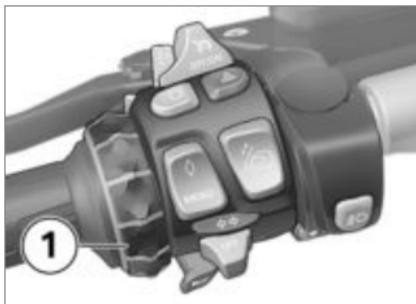
- Call up the Info menu and select Stopwatch.



- With the stopwatch stopped, push the Multi-Controller **1** to the right to start the stopwatch.
  - » The stopwatch continues timing even if you select some other reading or switch off the ignition.
- When the stopwatch is running, press the Multi-Controller **1** to the right to stop it.
- Press and hold the Multi-Controller **1** to the right to reset the stopwatch.

### Measuring travel times

- Call up the Info menu and select **Travel times**.



- Push the Multi-Controller **1** to the right and hold it in this position to reset the travel time.
  - » Timing continues even if you select some other reading or switch off the ignition.

 Time during which the motorcycle was on the move since the last reset.

 Time during which the motorcycle was at a standstill since the last reset.

## Trip odometer

### Selecting tripmeter

- Switch on the ignition.



- Call up the **Trip** menu with Multi-Controller **1**, and then select the desired trip odometer **2**.

The following counters can be displayed:

- Trip odometer 1 (Trip 1)
- Trip odometer 2 (Trip 2)
- Automatic trip odometer (Trip Auto.), resets automatically eight hours after the ignition is switched off.

## Resetting trip odometer

- Switch on the ignition.
- Select desired tripmeter.



- Press Multi-Controller **1** to right and hold until tripmeter **2** has been reset.

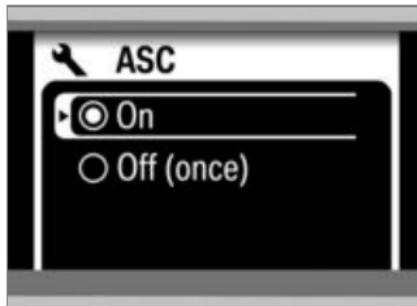
## Automatic Stability Control (ASC)

### Switching ASC function off and on

- Switch on the ignition.
- Call up the *Settings* menu and select the ASC menu item.

### NOTICE

This menu cannot be called up while the motorcycle is on the move. ◀



- Select *Off (once)* to switch off the ASC until the next time the ignition is switched on.



lights up.

- Select *On* to switch the ASC on. Alternate method: Switch the ignition off and then on.



goes out, in the event of incomplete self-diagnosis, the ASC indicator and warning light starts flashing.

## Dynamic Traction Control (DTC)

– with riding modes Pro<sup>OE</sup>

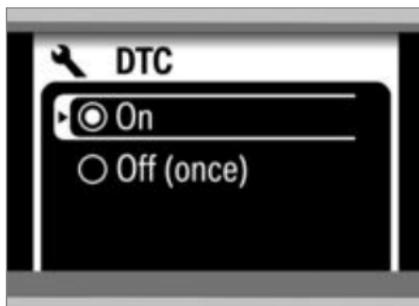
### Turning the DTC function off and on

- Switch on the ignition.
- Call up the *Settings* menu, and then select the DTC menu item.



### NOTICE

This menu cannot be called up while the motorcycle is on the move. ◀



- Select *Off (once)* to turn off the DTC one time until the next time the ignition is turned on.



lights up.

- Select *On* to turn on the DTC. Alternative: turn the ignition off and on again.



goes out, in the event of incomplete self-diagnosis, the DTC indicator and warning light starts flashing.

## Electronic chassis and suspension adjustment (D-ESA)

– with Dynamic ESA<sup>OE</sup>

### Dynamic ESA Adjustment options

Using the Dynamic ESA electronic chassis and suspension adjustment system, you can easily adjust your motorcycle to the load being carried and the road conditions.

Using leveling sensors, Dynamic ESA detects movements of the running gear and responds to them by adjusting the damper valves. As a result, the chassis and suspension is adjusted to the conditions of the surface.

Starting from the basic setting (NORMAL) the damping can also be set to a harder (HARD) or softer (SOFT) setting.

Dynamic ESA calibrates itself at regular intervals when the vehicle is at a standstill and the engine is running to ensure that the system is functioning properly.

– with riding modes Pro<sup>OE</sup>

The chassis and suspension setting depends on the selected riding mode. Damping set by the riding mode can be changed by the rider.

### Setting suspension compliance

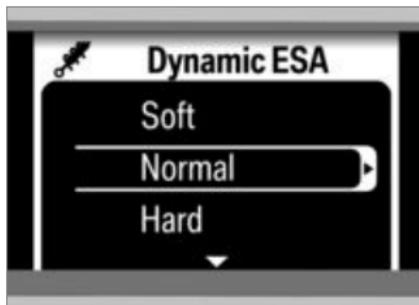
- Start engine.



#### NOTICE

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

- Call up the *Dynamic ESA* menu.



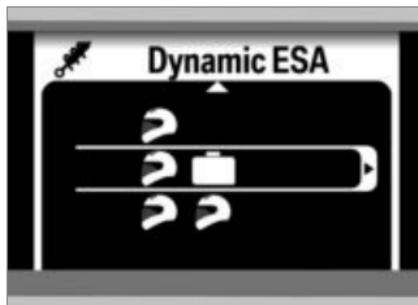
The possible settings for the damping characteristic appear on the display.

- **Soft**: comfortable damping
- **Normal**: normal damping
- **Hard**: sporty damping
- Select the damping characteristic you want or move the cursor down to set the vehicle load.



## NOTICE

The load setting cannot be adjusted while the motorcycle is underway. ◀



The possible settings for vehicle load appear on the display.



One-up



One-up with luggage



Two-up (with luggage)

- Select desired load variant.
- » The chassis and suspension are set according to the selection and the Dynamic ESA display is adapted to the new setting. The symbols for loading and damping are shown

in gray during the adjustment procedure.

## Riding mode

### Use of the riding modes

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

- Riding on wet roads.
- Riding on dry roads.

- with riding modes Pro<sup>OE</sup>
- Brisk riding on dry roads.

For each of these three scenarios, the optimal interaction between engine torque, throttle response, ABS control, and ASC/DTC control is provided.

- with Dynamic ESA<sup>OE</sup>

The suspension settings also adjust to the selected scenario.

## Setting riding mode

- Switching on ignition (➡ 46).



- Press button **1**.

### NOTICE

Details on the selectable driving modes are provided in the chapter "Technology in Detail".◀



The selection arrow **2** and the active riding mode **1** are shown.



- Press button **1** repeatedly, until the desired riding mode is shown next to the selection arrow.

The following riding modes can be selected:

- RAIN: When riding on wet roads.
- ROAD: When riding on dry roads.
- with riding modes Pro<sup>OE</sup>
  - » The following driving mode can also be selected:
    - DYNA: For brisk riding on dry roads.◀
    - » When the motorcycle is stationary, the selected riding mode is activated after approx. 2 seconds.
    - » The newly selected riding mode is activated during a ride only if the throttle grip is in the basic setting and no brakes are operated.
    - » After the new riding mode is activated, the symbols for coolant temperature and fuel level are displayed again.

- » The riding mode selected and its associated engine characteristic, ABS, ASC/DTC, and Dynamic ESA settings are retained even after the ignition has been switched off.

## Cruise control

– with cruise control<sup>OE</sup>

### Switch on cruise-control system



- Push switch **1** to right.
- » Button **2** is unlocked.

### Setting road speed



- Briefly press button **1** forward.

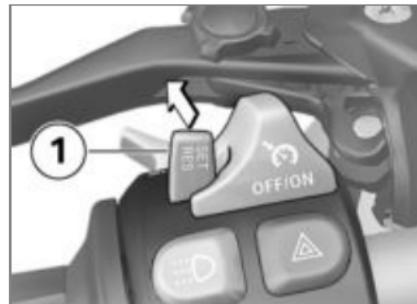
 Adjustment range for cruise control (gear-dependent)

6...130 mph (10...210 km/h)

**SET** Indicator lamp for cruise-control system lights up.

- » The motorcycle maintains your current cruising speed and the setting is saved.

### Acceleration



- Briefly press button **1** forward.
- » Speed is increased by 2 km/h each time button is pressed.
- Press button **1** forward and hold.
- » The motorcycle accelerates steplessly.
- » If the button **1** is no longer pressed, the speed achieved is maintained and saved.

## Decreasing speed



- Briefly press button **1** backward.



Decreasing the speed

Speed is decreased each time button is pressed.

1 mph (2 km/h)

- Press button **1** back and hold.
  - » The motorcycle decelerates steplessly.
  - » If the button **1** is no longer pressed, the speed achieved is maintained and saved.

## Deactivate cruise control

- Actuate brakes, clutch or throttle grip (take back throttle beyond back position) to deactivate cruise-control system.
  - » Cruise control indicator light goes out.

## Resuming former cruising speed



- Briefly push button **1** back to return to the speed saved beforehand.



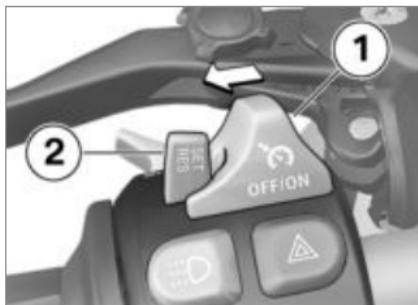
## NOTICE

Opening the throttle does not deactivate the cruise-control system. If you release the throttle grip, the motorcycle will decelerate only to the cruising speed saved in memory, even though you might have intended slowing to a lower speed.◀

SET

Indicator lamp for cruise-control system lights up.

## Switching off cruise control



- Push switch **1** to left.
- » The system is deactivated.
- » Button **2** is locked.

## Hill Start Control

– with Hill Start Control<sup>OE</sup>

### Hill Start Control Operating

#### ATTENTION

**Switching off the engine or ignition, folding out the side stand, timeout (approx. 20**

### minutes) or in the event of a fault

Hill Start Control brake failure

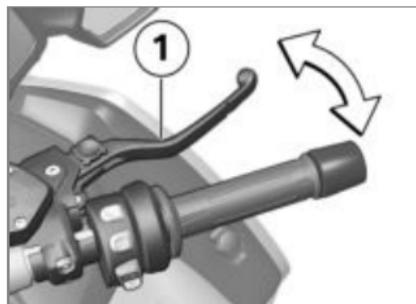
- It is imperative to secure the motorcycle by manual braking.◀

#### NOTICE

Hill Start Control is only a convenience system for easier hill-starting and should, therefore, not be confused with a parking brake.◀

#### NOTICE

You can find more detailed information regarding Hill Start Control in the "Technology in detail" chapter.◀



- Apply brake lever **1** firmly and then release.

 Hill Start Control indicator lamp appears on the display.

- » Hill Start Control is now activated.
- To switch off Hill Start Control, pull brake lever **1** again.

#### NOTICE

Hill Start Control is automatically deactivated after pulling away.◀

- The general warning light and the indicator lamp on the

display light up briefly and then the Hill Start Control indicator lamp goes out when the brake is fully released.

- » Hill Start Control is now switched off.

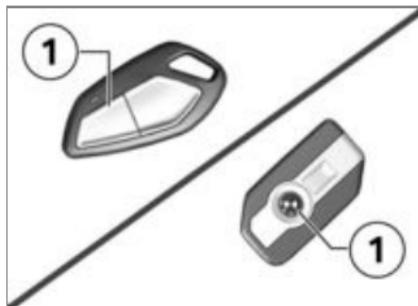
## Anti-theft alarm (DWA)

### Activation

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

- Switching on ignition (➡ 46).
- DWA Adapting (➡ 72).
- Turn off ignition.
- » If DWA is activated, DWA is automatically activated after the ignition is switched off.
- » Activation takes approximately 30 seconds to complete.
- » Turn indicators are illuminated twice.
- » Confirmation tone sounds twice (if programmed).

- » The anti-theft alarm system is active.
  - with central locking system<sup>OE</sup>
  - or
  - with Keyless Ride<sup>OE</sup>



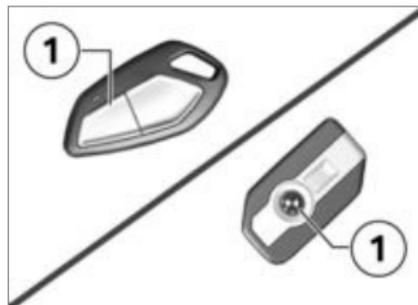
- Turn off ignition.
- Press button **1** on the remote control or radio-operated key twice.



### NOTICE

See also the other functions of the remote control for the central locking system.◀

- » Activation takes 30 seconds to complete.
- » Turn indicators are illuminated twice.
- » Confirmation tone sounds twice (if programmed).
- » The anti-theft alarm system is active.



- To deactivate the movement sensor (for example if you are about to transport the motorcycle on a train and the strong swaying movement of the moving train could trip the alarm), press button **1** on the remote control or the radio-operated

key during the activation phase again.

- » Turn signals are illuminated three times.
- » Confirmation tone sounds three times (if programmed).
- » Movement sensor is deactivated.

## Alarm signal

The DWA alarm can be set off by:

- Motion sensor
- Switching on ignition with an unauthorized ignition key.
- Disconnecting the DWA from the motorcycle battery (DWA battery takes over the power supply – alarm sound only, hazard warning lights do not flash)

If the DWA battery is discharged all functions remain operational; the only difference is that the alarm cannot be set off if the

system is disconnected from the motorcycle battery.

The duration of the alarm is approx. 26 seconds. During the alarm, an alarm tone sounds and the turn indicators flash. The type of alarm sound can be set by an authorized BMW Motorrad retailer.

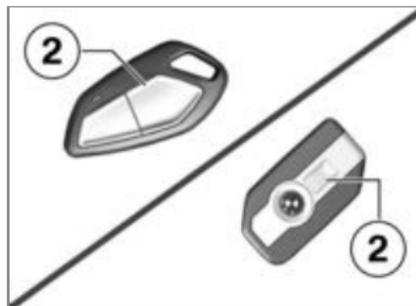
If an alarm was triggered while the motorcycle was unattended, the rider is notified accordingly by an alarm tone sounding once when the ignition is switched on. The DWA LED then signals the reason for the alarm for one minute.

### Light signals on DWA LED:

- 1 flash: motion sensor 1
- 2 flashes: motion sensor 2
- 3 flashes: ignition turned on with unauthorized ignition key
- 4 flashes: DWA disconnected from motorcycle battery

– 5 flashes: motion sensor 3

- with central locking system<sup>OE</sup>
- or
- with Keyless Ride<sup>OE</sup>

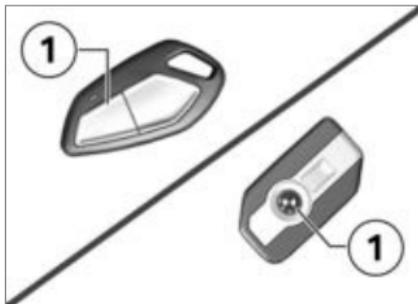


You can cancel an alarm at any time by pressing the button **2** on the remote control or the radio-operated key, without deactivating the DWA.

## Deactivation

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

- Emergency on/off switch (kill switch) in normal operating position.
- Switch on the ignition.
  - » Turn indicators light up once.
  - » Confirmation tone sounds once (if programmed).
  - » DWA is switched off.
    - with central locking system<sup>OE</sup>
    - or
    - with Keyless Ride<sup>OE</sup>



- Press button **1** on the radio-operated key once.



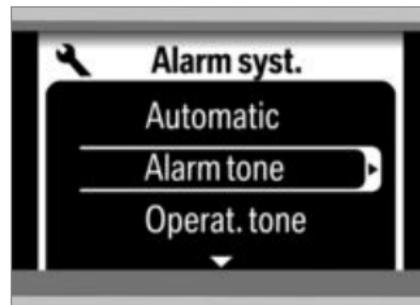
## NOTICE

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

- » Turn indicators light up once.
- » Confirmation tone sounds once (if programmed).
- » DWA is switched off.

## DWA Adapting

- with anti-theft alarm system (DWA)<sup>OE</sup>
- Call up the Settings menu and select Vehicle - Alarm system.



The following settings are available:

- **Automatic - On:** the anti-theft alarm system is activated automatically after the ignition is switched off.
- **Automatic - Off:** the anti-theft alarm system has to be activated with the remote key after the ignition is switched off.
- **Alarm tone:** type of alarm tone.
- **Operating tone - On:** the turn signals flash and one tone sounds as a confirmation

when the alarm is switched on or off.

- Operating tone - Off: the turn signals flash as the only confirmation when the anti-theft alarm is switched on or off.
- Make the desired adjustment using the Multi-Controller.

## Heating

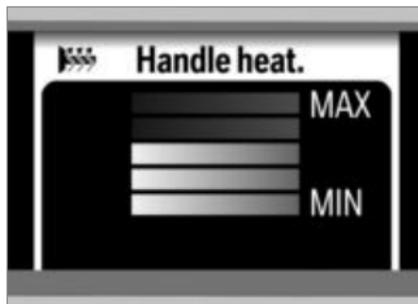
### Operating heated grips

- Start engine.

#### NOTICE

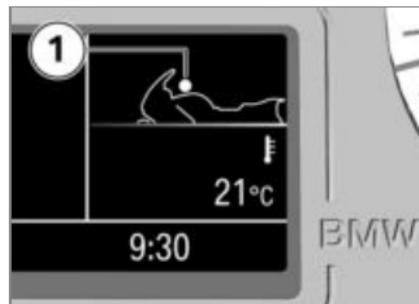
The heated grips option can only be activated when the engine is running.◀

- Call up the `Handle heat.` menu.



The grips have five-stage heating. Stage five is for heating the grips quickly: it is advisable to switch back to a lower stage as soon as the grips are warm.

- Select the desired heating level.



Symbol **1** appears on the display, indicating that the handlebar grip heating is ON.

### Rider's seat heater

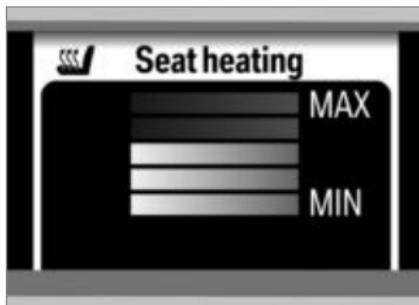
– with seat heating<sup>OE</sup>

- Start engine.

#### NOTICE

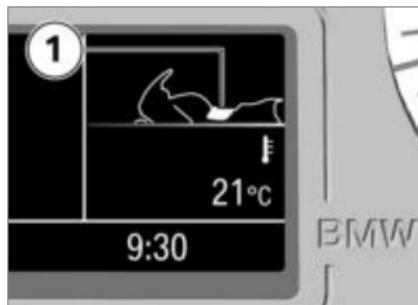
Seat heating can be activated only when the engine is running.◀

- Call up the `Seat heating` menu.



The rider's seat has five-stage heating. Stage five is for heating the seat quickly: it is advisable to switch back to a lower stage as soon as the seat is warm.

- Select the desired heating level.



Symbol **1** appears on the display, indicating that the seat heating is ON.



If this warning symbol appears it tells you that the onboard system voltage is low. If applicable, the seat heating might have been temporarily switched off.

### Pillion passenger seat heater

– with seat heating<sup>OE</sup>

- Start engine.



### NOTICE

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

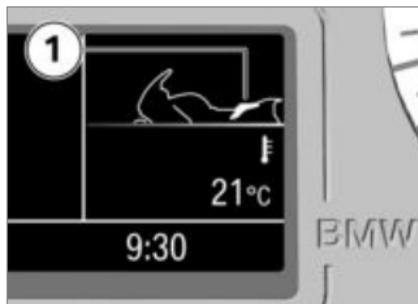


- Select desired heating level with switch **1**.



The passenger seat can be heated at two levels. The second level is used for fast heat-up of the seat; then the switch should be switched back to the first level.

- **2** Switch in middle position: Heating off.
- **3** Switch in one-dot position: 50 % heating output.
- **4** Switch in two-dot position: 100 % heating output.



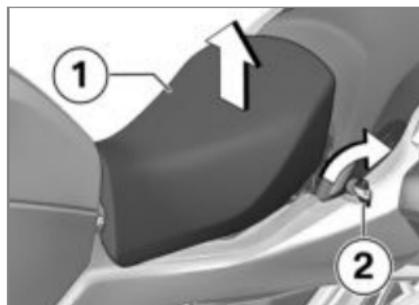
Symbol **1** appears on the display, indicating that the rear seat heating is ON.



If this warning symbol appears it tells you that the onboard system voltage is low. If applicable, the seat heating might have been temporarily switched off.

## Rider's seat

### Removing rider's seat



- Turn ignition key **2** clockwise.
- Lift up front seat **1** slightly at the rear.



- Remove front seat **1** from seat bracket **3** by pulling to the rear.

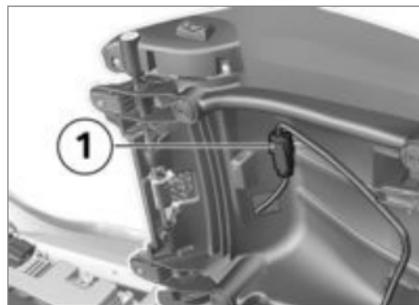
– with seat heating<sup>OE</sup>

- Disconnect electrical plug **2** for seat heater.<

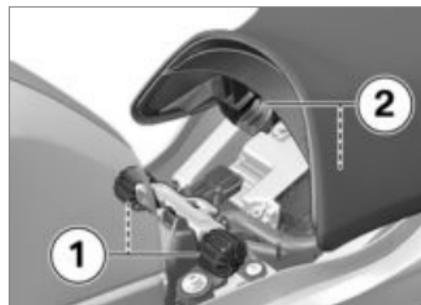
- Remove front seat and place on a clean and dry surface with upholstered side facing down.

## Installing driver's seat

– with seat heating<sup>OE</sup>



- Connect plug **1** of the seat heating.<



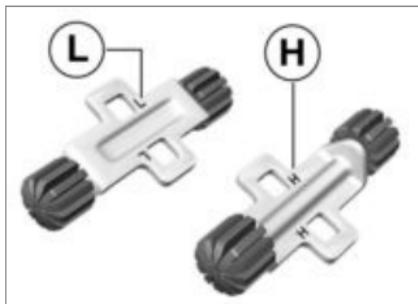
- Locate front seat lugs **2** in the rubber buffers **1** on the left and right.
- Lower the rear of the rider's seat and engage the seat in the latching mechanism.

## Adjusting front-seat height

- Removing rider's seat (➡ 75).

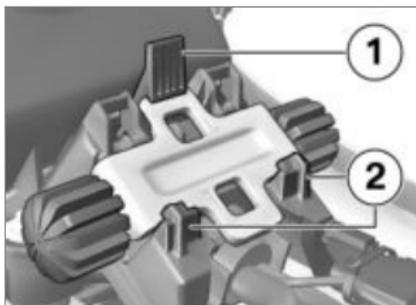


- Pull latch **1** to the front and remove adjusting plate **2**.



- Turn the adjuster plate to position **L** to obtain the lower seat height.

- Turn the adjuster plate to position **H** to obtain the higher seat height.

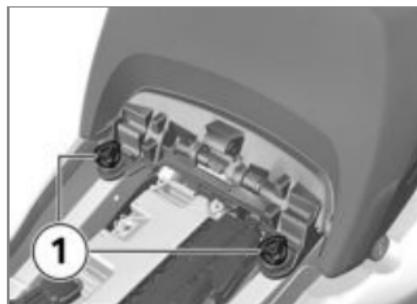


- Insert the adjuster plate into mounts **2** in the desired position and then press it into the catch **1**.
- Installing driver's seat (➡ 76).

## Passenger seat

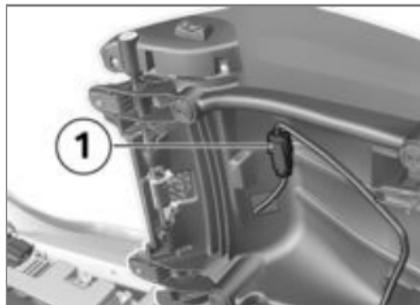
### Remove passenger seat

- Switch off ignition.
- Removing rider's seat (➡ 75).



- Remove screws **1**.
- Pull the rear seat slightly forward and lift the seat slightly.

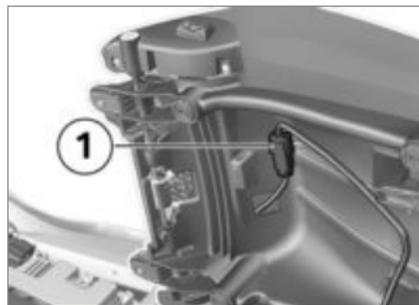
– with seat heating<sup>OE</sup>



- Disconnect plug **1** of the seat heating and remove the rear seat.<
- Lay the seat on the cover side on a clean surface.

## Install the passenger seat

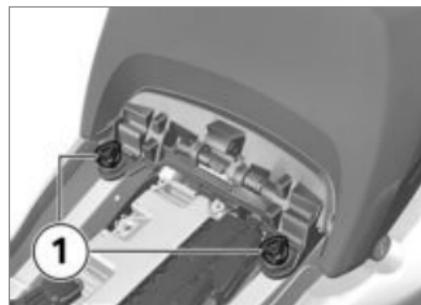
– with seat heating<sup>OE</sup>



- Connect plug **1** of the seat heating.<



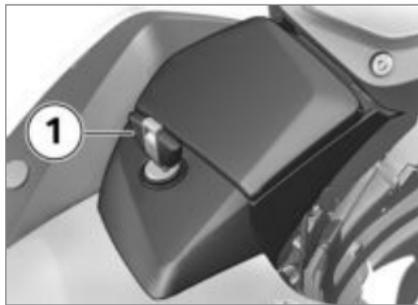
- Position pillion seat on the mounts **1**.



- Install screws **1**.

## Storage compartment

### Operating the left storage compartment



- Unlock and lock storage compartment lock **1** using the ignition key.
- Press unlocked lock barrel downwards to open the lid.

#### **ATTENTION**

### High temperatures in the storage compartments, especially in summer

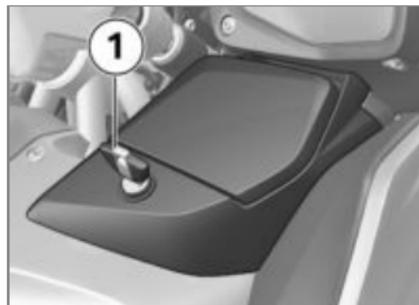
Damage to objects housed here, particularly electronic devices

such as cellular phones and MP3 players

- Refer to the operating instructions of the electronic device for possible usage restrictions.◀
- Do not place objects that are sensitive to heat in the storage compartments during the summer.

### Operating the right storage compartment

– with audio system<sup>OE</sup>



- Unlock and lock storage compartment lock **1** using the ignition key.
- Press unlocked lock barrel downwards to open the lid.

#### **ATTENTION**

### High temperatures in the storage compartments, especially in summer

Damage to objects housed here, particularly electronic devices such as cellular phones and MP3 players

- Refer to the operating instructions of the electronic

device for possible usage restrictions.◀

- Do not place objects that are sensitive to heat in the storage compartments during the summer.

## Central locking system Locking

– with central locking system<sup>OE</sup>



- Switch on ignition and press button **1**.



## NOTICE

Only motorcycles without Key-less Ride have a separate remote key for the central locking system and alarm system.◀

- Alternatively: Press button **2** on remote control or radio-operated key.
  - » The storage compartment in the left-side fairing panel and the cases are locked.
- with audio system<sup>OE</sup>
  - » The storage compartment in the right side fairing panel is locked.◀
- with topcase<sup>OA</sup>
  - » The topcase is locked.◀
  - » These locks cannot subsequently be unlocked manually.



The locked symbol appears on the display.

- with anti-theft alarm system (DWA)<sup>OE</sup>
  - » The functionality and operation of the remote control of the alarm system are described in the corresponding section.◀

## Unlocking

– with central locking system<sup>OE</sup>



- Switch on ignition and press button **1**.
- Alternatively: Press button **2** on remote control or radio-operated key.

- » The storage compartment in the left side fairing panel and the cases are unlocked.
- » The storage compartment in the right side fairing panel is unlocked.
- with topcase<sup>OA</sup>
  - » The Topcase is unlocked.<
  - » Once a lock has been locked manually it subsequently has to be unlocked manually as well.
- with anti-theft alarm system (DWA)<sup>OE</sup>
  - » The functionality and operation of the remote control of the alarm system are described in the corresponding section.<

## Emergency unlocking

- with central locking system<sup>OE</sup>

If the central locking system refuses to unlock, you can open the cases, topcase and stowage compartments manually. The procedure is as follows:

- Remove case (➡ 164).
- Open case (➡ 163).



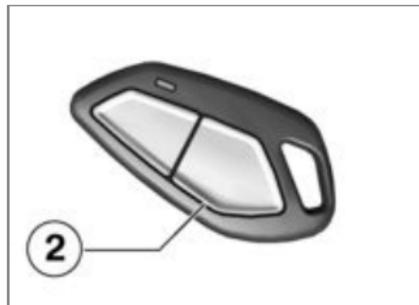
- First turn the key in the topcase lock 45° past the LOCK position, then turn it to the dot position and press in the lock barrel.
- » The release lever pops open.

## Logon of remote controls

- with central locking system<sup>OE</sup>
- with anti-theft alarm system (DWA)<sup>OE</sup>
- without Keyless Ride<sup>OE</sup>

If a remote control has been mislaid and a replacement acquired or if you are going to use an additional remote control, you must invariably log on all the remote controls in the set.

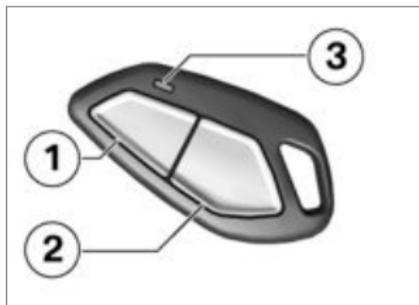
- Enable logon of the remote controls as follows:
- Switch on the ignition.



- Press button **2** on the remote control three times.
  - » One acoustic signal sounds.
- Within ten seconds, switch off the ignition.

You can now proceed to log on all the remote controls.

- Step through the following procedure with each remote control in turn:



- Press and hold down buttons **1** and **2** until LED **3** stops flashing.
  - » LED **3** flashes for about ten seconds.
- Release buttons **1** and **2**.
  - » LED **3** lights up.
- Press button **1** or button **2**.
  - » One audible signal sounds, LED **3** goes out.

To complete logon:

- Switch off ignition.
  - » Three acoustic signals sound.
  - » The logon is also ended in the following situations:
    - 4 remote controls have been logged on.
    - After logon of the first remote control, no button was pressed for approx. 30 seconds.

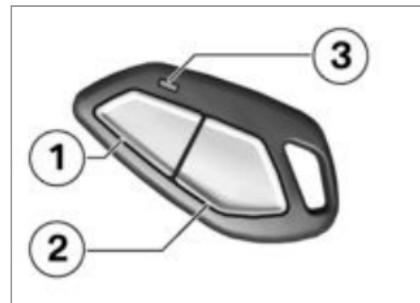
### Synchronizing the remote-control units

- with central locking system<sup>OE</sup>
- with anti-theft alarm system (DWA)<sup>OE</sup>
- without Keyless Ride<sup>OE</sup>

If the central locking system stops responding to the signals from a remote control unit then the unit will need to be resynchronized. This scenario can arise (for example) after the remote-control unit's buttons have been pressed frequently

while the unit was beyond the range of the alarm system.

- Synchronize the remote-control units as follows:
  - Switch on the ignition.



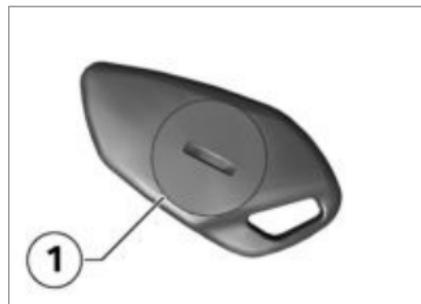
- Press and hold down buttons **1** and **2**, maintaining pressure until LED **3** stops flashing.
  - » LED **3** flashes for about ten seconds.
- Release buttons **1** and **2**.
  - » LED **3** lights up.
- Press button **1** or button **2**.
  - » LED **3** goes out.

## Replacing battery in the remote-control unit

- with central locking system<sup>OE</sup>
- with anti-theft alarm system (DWA)<sup>OE</sup>
- without Keyless Ride<sup>OE</sup>

If the LED lamp on the remote-control unit fails to light up when a button is pressed, or only lights up briefly:

- Replace the battery in the remote-control unit.



- Open the battery compartment cover **1**.

- Dispose of the old battery in accordance with legal regulations. Do not dispose of the battery in the household waste.

### **ATTENTION**

#### **Unsuitable or improperly inserted batteries**

Component damage

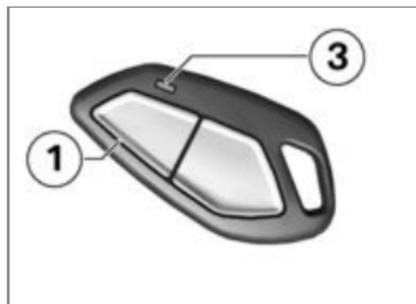
- Use a battery compliant with the manufacturer's specifications.
- When inserting the battery, make sure that the polarity is correct. ◀
- Insert the new battery with the positive side up.



for remote-control central locking system

CR 1632

- » The LED on the remote control lights up; the remote-control unit must now be synchronized.



- Press button **1** twice.
  - » LED **3** flashes for several seconds.
  - » The remote-control is again ready to be used.



## Setting

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## Mirrors

### Adjust mirrors



- Move mirror into the desired position by pressing lightly on the edge of the glass.

## Headlight

### Headlamp range and spring preload

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

Spring preload adjustment may only be insufficient when the mo-

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

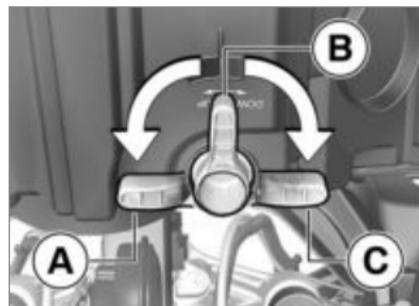
### NOTICE

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

### Requirement

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



- A swiveling lever is used for the headlight range adjustment.
  - Position **A** for light loads (rider only)
  - Position **B** for rider and luggage
  - Position **C** for heavy loads (with pillion passenger)

## Windshield

### Adjusting the windshield

- Switch on the ignition.
  - » When driving off, the windshield automatically moves to

its last position before the ignition was turned off.



- Press button **1** at the top to raise the windshield.
- Press button **1** at the bottom to lower the windshield.
- Turn off ignition.
  - » The windshield automatically moves to the lower end position.
  - » If the windshield encounters resistance before reaching the end position, the pressure-sensitive finger guard system activates. The windshield is stopped and moves upwards

slightly. After several seconds, the windshield will attempt to move to the end position again.

If a windshield has been installed that is not approved by BMW Motorrad, correct functioning of the anti-trap mechanism cannot be guaranteed.

- In this case: Ensure the clearance of the windshield before switching off the ignition.

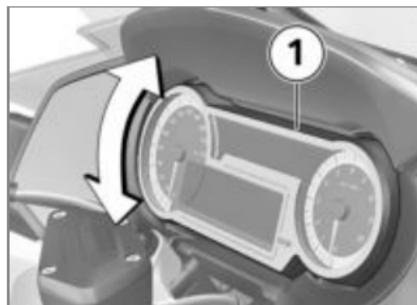
## Instrument cluster

### Adjusting the instrument cluster



#### NOTICE

The instrument cluster may only be adjusted when the motorcycle is stationary. ◀



- Move instrument cluster **1** to desired position by pressing firmly on the top or bottom edge. When doing so, make sure to press in the center so as to ensure the adjustment is even.

## Clutch

### Adjusting clutch lever

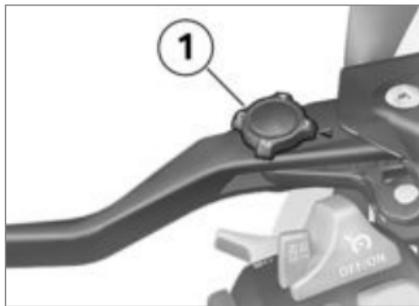


#### WARNING

#### Adjusting the clutch lever while driving

Accident hazard

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



- Turn adjusting wheel **1** into desired position.



#### NOTICE

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

- » Four settings are available:
- Position 1: smallest distance between handlebar grip and clutch lever.
  - Position 4: largest distance between handlebar grip and clutch lever.

## Brakes

### Adjusting handbrake lever

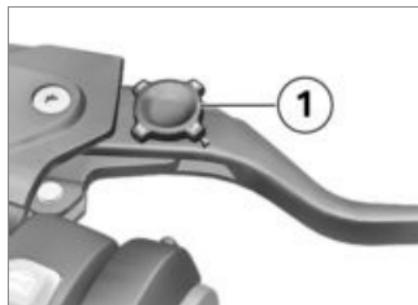


#### WARNING

#### Adjusting the brake lever while driving

Accident hazard

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



- Turn adjusting wheel **1** into desired position.



#### NOTICE

The adjustment wheel can be turned more easily if you press the handbrake lever forward when doing so. ◀

- » Four settings are available:
- Position 1: smallest distance between handlebar grip and brake lever.
  - Position 4: largest distance between handlebar grip and brake lever.

## Spring preload

### Setting

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

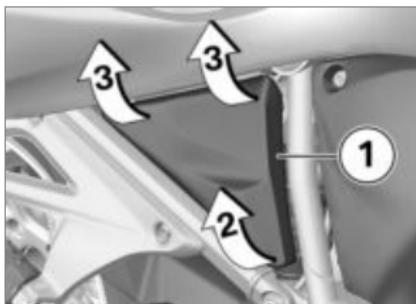
### Adjusting spring preload at rear wheel



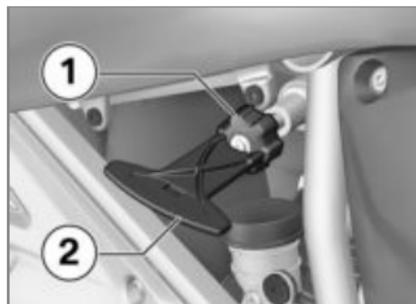
#### Adjusting the spring preload while riding.

Accident hazard

- Adjust the spring preload only when the motorcycle is stationary. ◀
- Park the motorcycle, ensuring that the support surface is firm and level.



- Pull bottom of cover **1** slightly outward at position **2**.
- To avoid damaging the cover and the mounts, lift off cover at the positions **3**.



### **WARNING**

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

Poorer handling.

- Adjust damping characteristic to changed spring preload. ◀
- To raise the spring preload, turn the adjustment knob **1** clockwise using the special tool **2** (onboard tool kit).
- To reduce the spring preload, turn the adjustment knob **1** counterclockwise using the tool **2**.



Basic setting of spring preload, rear

– without Dynamic ESA<sup>OE</sup>

Turn adjuster wheel counterclockwise as far as possible. (One-up without load)

Turn adjuster wheel as far as possible counterclockwise, then 10 turns clockwise. (One-up with load)

Turn adjuster wheel clockwise as far as possible. (Two-up and load)◀



- Insert cover in mount **2** and press it into mounts **1**.

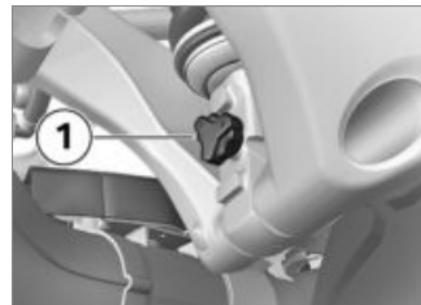
## Damping Setting

The damping must be adjusted to the road conditions and the spring preload.

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

## Adjusting damping on rear wheel

- Park the motorcycle, ensuring that the support surface is firm and level.
- Adjust damping from the left side of the vehicle.



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



Basic setting of rear wheel rear-wheel damping

– without Dynamic ESA<sup>OE</sup>

Turn the adjuster knob as far as possible clockwise, then 6 clicks counterclockwise.  
(One-up without load)

Turn the adjuster knob as far as possible clockwise, then 4 clicks counterclockwise.  
(One-up with load)

Turn the adjuster knob as far as possible clockwise, then 2 clicks counterclockwise.  
(Two-up with load)◁



## **Riding**

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## Safety information

### Rider's Equipment

Do not ride without the correct clothing. Always wear:

- 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.



### ATTENTION

#### Use of materials that leave a stain (e.g., blue jeans) on the seat

Discoloration of the seat

- Avoid contact with materials that leave a stain.◀

## 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 vehicle weight.
- Ensure that case volumes on left and right are equal.
- Make sure that weight is uniformly distributed between right and left.
- Pack heavy pieces of luggage and cargo as low and as close to the center of the motorcycle as possible.
- Observe the maximum payload and maximum speed as indicated on the label in the case

(see also the chapter "Accessories").

- Observe the maximum payload and maximum speed as indicated on the label in the topcase (see also the chapter "Accessories").
- with tank bag<sup>OA</sup>
- Observe maximum payload of tank rucksack.



Payload of tank rucksack

max 11 lbs (max 5 kg)◀

## Speed

If you ride at high speed, always bear in mind that various boundary conditions can adversely affect the handling of your motorcycle:

- Settings of spring-strut and shock absorber system
- Imbalanced load
- Loose clothing

- Insufficient tire inflation pressure
- Poor tire tread
- Etc.

## Maximum speed with winter tyres

### DANGER

#### Maximum speed of the motorcycle is higher than the permissible maximum rated speed of the tires.

Risk of accident due to tire damage at high speed.

- Observe the maximum permissible speed for the tyres. ◀

With winter tyres, the maximum permissible speed for the tyres must be observed.

Attach a label specifying the maximum permissible speed in the field of view of the instrument cluster.

## Risk of poisoning

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

### WARNING

#### Harmful exhaust gas

Danger of suffocation

- Do not inhale exhaust fumes.
- Do not run the engine in closed rooms. ◀

## Burn hazard

### CAUTION

#### Intense heating up of engine and exhaust system while riding

Burn hazard

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

## Catalytic converter

If misfire 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 catalytic converter

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

## Danger of overheating



### ATTENTION

#### Engine idling for a lengthy period while at a standstill

Overheating due to insufficient cooling; in extreme cases vehicle fire

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

## Modifications



### ATTENTION

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

Damage to the affected parts, failure of safety-relevant functions, expiration of warranty

- Do not make any modifications. ◀

## Observe checklist

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

### Always before riding off

- Check operation of the brake system.
- Check operation of the lighting and signal system.
- Check clutch function (▮▮▮ 133).
- Checking tire tread depth (▮▮▮ 136).
- Checking tyre pressure (▮▮▮ 135).
- Check secure hold of cases and luggage.
- without Dynamic ESA<sup>OE</sup>
- Adjusting spring preload at rear wheel (▮▮▮ 89).
- Adjusting damping on rear wheel (▮▮▮ 90). ◀

– with Dynamic ESA<sup>OE</sup>

- Setting suspension compliance (▮▮▮ 64). ◀

## At every third refueling stop

- Check engine oil level (▮▮▮ 128).
- Checking front brake pad thickness (▮▮▮ 130).
- Checking rear brake pad thickness (▮▮▮ 130).
- Check front brake fluid level (▮▮▮ 131).
- Checking rear brake fluid level (▮▮▮ 132).
- Check coolant level (▮▮▮ 133).

## Starting

### Starting the engine

- Switch on ignition.
- » Pre-Ride-Check in progress (▮▮▮ 97)
- » ABS self-diagnosis is performed (▮▮▮ 98)

- » ASC self-diagnosis in progress (➡ 99)
- 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 table in the

chapter "Technical Data" may provide assistance. (➡ 178)

## Pre-Ride-Check

The instrument cluster runs a test of the 'General' warning light when the ignition is switched on: this is the "Pre-Ride-Check".

### Phase 1

 shows yellow.

- » The instrument pointers move once from the beginning to the end of the scale.

### Phase 2

 shows red.

### Phase 3

- » General warning light goes out and display changes to operating data.

If the universal warning light fails to appear in the display:



## WARNING

### Faulty general warning light.

Lack of display of malfunctions.

- Check that the 'General' warning light comes on, and that it shows red and yellow. ◀
- 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 checks whether the BMW Motorrad Integral ABS is ready for operation. The self-diagnosis routine launches automatically when you switch on the ignition.

#### Phase 1

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



flashes.

#### Phase 2

- » Check wheel sensors while starting off.



flashes.

### ABS self-diagnosis completed

- » The ABS indicator and warning light goes out.



ABS self-diagnosis routine not completed

ABS is not available, as the self-diagnosis routine was not completed. (The motorcycle must reach a specified minimum speed before the system can check operation of the wheel speed sensors: 3 mph (5 km/h))

If an ABS error is displayed after the ABS self-diagnosis is completed:

- It remains possible to continue riding. Bear in mind that neither the ABS function nor the integral function is available.
- Have the malfunction corrected as soon as possible at an authorized service facility, preferably an authorized BMW Motorrad Retailer.

## ASC self-diagnosis

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

### Phase 1

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



flashes slowly.

### Phase 2

- » Checking the diagnosable system components while the motorcycle is moving.



flashes slowly.

## ASC self-diagnosis completed

- » The ASC indicator and warning light goes out.
- Check the display of all indicator and warning lights.



ASC self-diagnosis routine not completed

ASC is not available because the self-diagnosis routine was not completed. (The motorcycle must reach a specified minimum speed before the system can check operation of the wheel sensors: min 3 mph (min 5 km/h))

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

- It remains possible to continue riding. It must be noted that the ASC function is not available.

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

## DTC self-diagnosis

– with riding modes Pro<sup>OE</sup>

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

### Phase 1

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



flashes slowly.

## Phase 2

» Checking the diagnosable system components while the motorcycle is moving.



flashes slowly.

## DTC self-diagnosis completed

- » The DTC indicator and warning light goes out.
- Check the display of all indicator and warning lights.



DTC self-diagnosis not completed

The DTC function is not available, as the self-diagnosis function has not been completed. (To check wheel speed sensors, motorcycle must reach a minimum speed with engine running: min 3 mph (min 5 km/h))

If an DTC error is displayed after the DTC self-diagnosis is completed:

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

## Running 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.
- Try to do most of your riding during this initial period on twisting, fairly hilly roads, avoid-

ing high-speed main roads and highways if possible.

- Observe the engine run-in speeds.



Engine break-in speeds

<5000 min<sup>-1</sup> (Odometer reading 0...621 miles (0...1000 km))

no full throttle (Odometer reading 0...621 miles (0...1000 km))



Carrying out the 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 ex-

erting 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 lean angles until the tires are run in. This running in procedure is essential if the tires are to achieve maximum grip.

## **! WARNING**

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

Accident hazard

- Always think well ahead and avoid extreme angles.◀

## **Shifting gears**

– with gearshift assistant Pro<sup>OE</sup>

### **Pro shift assistant Requirement**

The gearshift assistant provides help with upward and downward gear shifts without the clutch or the accelerator having to be operated. This is not an automatic transmission. The rider is an essential part of the system and makes the decision as to when to change gear.

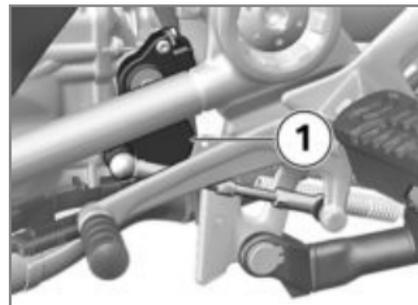
## **! NOTICE**

More detailed information on Pro Gear-shift Assistance can be found in the section "Technology in detail".◀

## **! NOTICE**

When changing gear using the Pro Gear-shift Assistance func-

tion, the cruise-control system is automatically deactivated for safety reasons.◀



- The gears are shifted into as usual with foot force on the shift lever.
- » The sensor **1** on the gear-lever shaft detects the intention to change gear and initiates gear-shift assistance.
- » When driving at constant speed in low gears at high revs, changing gear without using the clutch can result in major load change reactions. BMW Motorrad recommends

only changing gear using the clutch in such situations. The shifting assistant should not be used in the area of the rev-limiter.

- » No shifting support is provided in the following situations:
  - With the clutch operated.
  - If the gearshift lever is not in the initial position.
  - When shifting up with the throttle valve closed (coasting overrun mode) or when decelerating.
- To be able to make another gear shift using gear-shift assistance, the gear lever must be fully released after the first gear change.

## 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 extreme emergency braking technique that motorcyclists are often trained to use,

whereby maximum braking force is applied as rapidly and as powerfully as possible, the dynamic weight transfer cannot keep up with the increase in the deceleration rate so that the full braking force cannot be transferred to the road surface.

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

### Descending mountain passes



#### WARNING

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

Reduced of braking action, destruction of the brakes caused by overheating

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

## Wet, soiled brakes

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

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

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

### WARNING

#### Poorer braking action due to moisture and dirt

Accident hazard

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

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

## ABS Pro

### Physical riding limits

#### WARNING

#### Braking in curves

Danger of falling despite ABS Pro

- 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.◀

ABS Pro is available in all riding modes.

#### Falling cannot be excluded

Although ABS Pro represents valuable support and an enormous safety advantage for the rider when braking in the inclined position, it by no means redefines the physical riding limits. It

is still possible to exceed those limits through misjudgments or riding errors. In extreme cases this may result in a fall.

### Use on public roads

ABS Pro helps make riding your motorcycle on public roads even safer. When braking due to unexpected hazards in curves, locking-up and slipping of the wheels is prevented within the scope of the physical riding limits.

#### NOTICE

ABS Pro was not developed to increase the individual braking performance in the inclined position in the limit range.◀

## Parking your motorcycle

### Side stand

- Switch off engine.



#### ATTENTION

### Poor ground conditions in area of stand

Component damage cause by tipping over

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



#### ATTENTION

### Loading of the side stand with additional weight

Component damage cause by tipping over

- Do not sit on the motorcycle when it is parked on the side stands.◀

- Fold out side stand and park motorcycle.
- Turn the handlebars to left.
- On slopes point the motorcycle uphill and engage 1st gear.

### Center stand

- Switch off engine.



#### ATTENTION

### Poor ground conditions in area of stand

Component damage cause by tipping over

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



#### ATTENTION

### Center stand folds if subject to sharp movements.

Component damage cause by tipping over

- Do not sit on the motorcycle while it is resting on the center stand.◀
- Fold out center stand and jack up motorcycle.
- On slopes point the motorcycle uphill and engage 1st gear.

## Refueling

### Fuel specifications Requirement

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



#### ATTENTION

### Refueling with leaded fuel

Damage to catalytic converter

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



## ATTENTION

### Use of Ethanol E85 as fuel

Damage to the engine and fuel supply

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



Recommended fuel quality

Super unleaded (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.◀



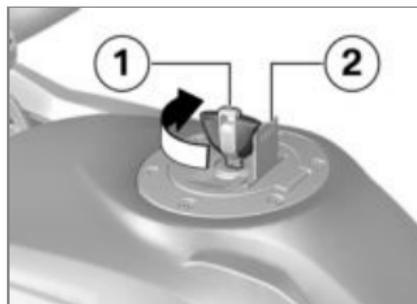
### ATTENTION

#### Contact of fuel and plastic surfaces

Damage to surfaces (become unattractive or cloudy)

- Immediately clean plastic surfaces after contact with fuel.◀

- Place motorcycle on the center stand, ensuring that it is resting on a firm and level support surface.



- Open protective cap **2**.
- Unlock fuel-tank cap **1** with ignition key by turning clockwise, then swivel it up.



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

#### NOTICE

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

#### NOTICE

The "usable fuel quantity" specified in the technical data is the fuel quantity, which can be re-

fueled if the fuel tank was completely emptied, i.e., if the engine dies off due to lack of fuel. ◀



Usable fuel quantity

Approx. 6.6 gal (Approx. 25 l)



Reserve fuel quantity

Approx. 1.1 gal (Approx. 4 l)

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

### Refueling procedure

– with Keyless Ride<sup>OE</sup>

#### Requirement

Steering lock is unlocked.



**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**

**Contact of fuel and plastic surfaces**

Damage to surfaces (become unattractive or cloudy)

- Immediately clean plastic surfaces after contact with fuel. ◀
- Place motorcycle on center stand, ensuring that it is resting on a firm and level support surface.



fuel quantity must be greater than the fuel reserve, so that the new filling level is detected and the fuel warning light is switched off. ◀



## NOTICE

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



Usable fuel quantity

Approx. 6.6 gal (Approx. 25 l)



Reserve fuel quantity

Approx. 1.1 gal (Approx. 4 l)

- Press fuel filler cap of fuel tank down firmly.
- » Fuel filler cap audibly engages.

- » Fuel filler cap automatically locks after run-on time expires.
- » The engaged fuel filler cap locks immediately when the steering lock is locked or during starting.

## Securing motorcycle for transport

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



## ATTENTION

### Motorcycle tips to the side when raising

Component damage cause by tipping over

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

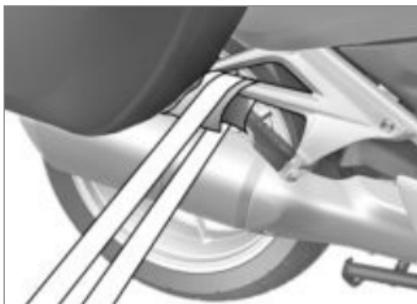


## ATTENTION

### Pinching of components

Component damage

- Do not pinch components, e.g. brake lines or wiring harnesses. ◀
- Route tie-down straps through the left and right sides of the fork brace and then tighten them by pulling down.



- Secure and tighten the luggage straps at the rear on the brackets for the passenger footrests on both sides.
- Tension all of the straps evenly to ensure that the vehicle is safely and reliably secured in position.



## Technology in detail

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## General instructions

More information on the topic of technology is available at:

**[bmw-motorrad.com/technology](http://bmw-motorrad.com/technology)**

## Antilock Brake System (ABS)

### Partially integral brake

Your motorcycle is equipped with a partially integral brake configuration. Both front and rear brakes are applied simultaneously when you pull the handbrake lever. The footbrake lever acts only on the rear brake.

The footbrake lever acts only on the rear brake.

BMW Motorrad Integral ABS adapts the brake force distribution between the front and rear brakes during braking by means of ABS modulation to suit the load carried by the motorcycle.



## ATTENTION

### Attempt at a burn-out despite integral function

Damage to rear-wheel brake and clutch

- Do not perform burn-out. ◀

### How does the Integral 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?

Bumpy or rough roads can briefly lead to a loss of contact between the tires and the road surface, until the transferable braking force is reduced to zero. If braking is carried out in this situation, ABS must reduce the brake pressure to ensure driving stability when restoring contact to the road. At this point in time, the BMW Motorrad Integral ABS must assume extremely low friction coefficients (gravel, ice,

snow) so that the running wheels turn in every imaginable case and the driving stability is ensured. After detecting the actual conditions, the system adjusts the optimum brake pressure.

### **In what ways is the Integral ABS noticeable to the rider?**

If the ABS system has to reduce the braking force due to the conditions described above, then vibrations can be felt through the handlebar brake lever.

If the handbrake lever is pulled, then braking pressure is built up at the rear wheel with the integral function. If the footbrake lever is first actuated after this, the brake pressure already built up can be felt earlier than the counter-pressure, than when the footbrake lever is actuated before or together with the handbrake lever.

### **Lifting off rear wheel**

However, during extremely heavy and rapid decelerations it is possible that the BMW Motorrad Integral 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 Integral ABS?**

The BMW Motorrad Integral ABS ensures driving stability on any surface within the limits of driving physics. The system is not optimized for special requirements resulting under extreme weather conditions off-road or on the racetrack. Handling should be adopted to driving skills and road conditions.

### **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 an extended period of time, the ABS function is deactivated for safety reasons and an ABS fault is indicated. A self-diagnosis routine must be completed before the error will be displayed.

Apart from problems with the BMW Motorrad ABS, unusual riding conditions can also cause a fault message to be generated:

- Warm-up on the center or auxiliary stand at idle or with gear engaged.
- Rear wheel locked-up for a longer period of time by engine brake, e.g. when riding downhill on slippery surfaces.

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 Integral ABS permits must not be used as an excuse for careless riding. ABS is primarily a means of ensuring a safety margin in genuine emergencies.

### WARNING

## Braking in curves

Risk of accident despite ABS

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

## Further development of ABS to ABS Pro

In the past, the BMW Motorrad ABS system provided for a very high level of safety while braking during straight-ahead riding. Now ABS Pro also offers increased safety even when braking in curves. ABS Pro prevents locking-up of the wheels even in case of rapid brake actuation. ABS Pro reduces abrupt changes in steering forces, especially during panic braking, and therefore decreases the risk of unwanted wheelies occurring.

## ABS control

From a technical standpoint, ABS Pro adjusts the ABS control to the angle of inclination of the motorcycle in dependence on the respective riding situation. Signals for the roll and yaw rate and the lateral acceleration are

used to determine the inclination of the motorcycle.

With an increasing inclination, the braking pressure gradient is increasingly limited at the start of braking. This results in a slower pressure buildup. In addition, the pressure modulation in the range of the ABS control is more uniform.

### **Advantages for the rider**

The advantages of ABS Pro for the rider are sensitive response and high braking and riding stability with the best possible deceleration, even in curves.

## **Automatic Stability Control (ASC)**

### **How does ASC work?**

BMW Motorrad ASC compares the wheel speeds of the front and rear wheels. From the speed difference the slip, and with it

the stability reserves on the rear wheel are determined. When a slip limit is exceeded, the engine torque is adapted by the engine management system.

### **What are the design features of ASC?**

BMW Motorrad ASC is an assistance system for the driver and is designed for riding on public roads. The extent to which the rider affects ASC control can be considerable (weight shifts when cornering, loose luggage on the motorcycle), especially when approaching the limits imposed by the laws of physics.

The system is not optimized for the special conditions encountered under extreme weather during off-road and race-track use. BMW Motorrad ASC can be switched off under these conditions.

## **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 exiting very tight curves.

The system compares the rotation speeds of the front and rear wheels to detect any tendency for the rear wheel to spin or lose traction. If the system registers implausible data for an extended period of time it will deactivate

the ASC functionality as safety precaution and a display will alert you to an ASC error. A self-diagnosis routine must be completed before the error will be displayed.

The following non-standard operating conditions may lead to automatic deactivation of BMW Motorrad ASC:

- Riding on the rear wheel (performing Wheelies) for an extended period with the ASC deactivated.
- Spinning the rear wheel with the front brake applied and the motorcycle stationary (Burn Out).
- Warm-up on the center or auxiliary stand at idle or with gear engaged.

Switching the ignition off and on again and then riding the motorcycle at more than a specific minimum speed reactivates the ASC.



Minimum speed for activating the ASC

min 3 mph (min 5 km/h)

If the front wheel loses contact with the ground under extreme acceleration, the ASC reduces the engine torque, maintaining the reduction until the front wheel makes contact with the ground again.

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

On a slippery surface, the throttle grip should never be suddenly twisted back completely unless the clutch is disengaged at the same time. The engine's braking torque could cause the rear wheel to lock, resulting in

unstable vehicle conditions. BMW Motorrad ASC is unable to intervene effectively under these conditions.

## Dynamic Traction Control (DTC)

– with riding modes Pro<sup>OE</sup>

### How does DTC work?

DTC compares the wheel speeds of the front and rear wheels. Differences in the relative rotation speeds allow the system to determine the slip rate, and thus the stability reserves at the rear wheel. The engine-management system adapts the engine torque when the slip limit is exceeded. The DTC has an incline sensor and can therefore adjust the wheel slip with greater sensitivity when cornering. This enables more dynamic driving whilst providing the same level of stability. In DYNAMIC mode, slight wheel-

ies are possible with the aid of the DTC.

## What are the design features of DTC?

DTC is an assistance system for the rider and is designed for riding on public roads. The extent to which the rider affects DTC control can be considerable (weight shifts when cornering, loose luggage on the motorcycle), especially when approaching the limits imposed by the laws of physics.

The system is not optimized for special requirements resulting under extreme weather conditions on the racetrack. DTC can be deactivated for riding in these conditions.



### Risky riding style

Risk of accident despite DTC

- 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 reduced 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 and the angle is considered, for example. If these values are detected to be implausible for a long period, a replacement value is used for the angle and the DTC function is deactivated. In these cases, a DTC error is displayed. A

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

While in the RAIN and ROAD riding modes with the front wheel lifted off, the DTC reduces the engine torque and quickly sets down the front wheel on the ground again, in the DYNAMIC mode minor wheelies supported by DTC are permitted.

DTC can issue an error message under the exceptional riding conditions outlined below.

### Unusual riding conditions:

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

Switching the ignition off and on again and then riding the motorcycle at more than a specific minimum speed reactivates the DTC.



Minimum speed for DTC activation

min 3 mph (min 5 km/h)

If the front wheel loses contact with the ground under extreme acceleration, the DTC reduces the engine torque until the front wheel makes contact with the ground again.

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

On a slippery surface, the throttle grip should never be suddenly twisted back completely unless the clutch is disengaged at the same time. The engine braking torque can cause the rear wheel to slip, resulting in an unstable driving state. DTC is unable to intervene effectively under these conditions.

## Electronic chassis and suspension adjustment (D-ESA)

– with Dynamic ESA<sup>OE</sup>

### Dynamic ESA Adjustment options

Using the Dynamic ESA electronic chassis and suspension adjustment system, you can easily adjust your motorcycle to the load being carried and the road conditions.

Using leveling sensors, Dynamic ESA detects movements of the running gear and responds to them by adjusting the damper valves. As a result, the chassis and suspension is adjusted to the conditions of the surface. Starting from the basic setting (NORMAL) the damping can also be set to a harder (HARD) or softer (SOFT) setting.

Dynamic ESA calibrates itself at regular intervals when the vehicle is at a standstill and the engine is running to ensure that the system is functioning properly.

– with riding modes Pro<sup>OE</sup>

The chassis and suspension setting depends on the selected riding mode. Damping set by the riding mode can be changed by the rider.

## Riding mode

### Riding mode

#### Riding mode selection

Three riding modes allow the motorcycle's characteristics to adapt to the prevailing weather conditions, the road and traffic, and the rider's style of riding:

- RAIN
- ROAD

- with riding modes Pro<sup>OE</sup>
- DYNAMIC

Each riding mode affects the behavior of the motorcycle in a different way. The ASC/DTC can be switched off in any mode; the following explanations apply exclusively to the system's response when it is switched on. The last selected riding mode is reactivated automatically after the ignition is switched off and on again.

The following rule always applies: selection of progressively more dynamic riding modes is accompanied by a corresponding reduction in the support furnished by ASC/DTC.

Therefore, consider the following when selecting the riding mode: the more dynamic the setting, the greater the demands on the skill of the rider!

Throttle response:

- in the RAIN mode: restrained
- in the ROAD mode: direct
- with riding modes Pro<sup>OE</sup>
- In DYNAMIC mode: dynamic

#### RAIN mode

The ASC/DTC system intervenes early enough to prevent the rear wheel from spinning. The vehicle remains extremely stable on road surfaces providing high to moderate coefficients of friction, and thus adhesion (extending

from dry and wet asphalt to dry cobblestones), and it is only on smooth, low-traction road surfaces (wet blacktop or wet cobblestones) that an obvious tendency toward drift will be noticed at the rear of the vehicle.

#### ROAD mode

The point at which the ASC/DTC system intervenes is later than in the RAIN mode. The vehicle remains stable on road surfaces with high to moderate coefficients of friction (traction) (dry and wet asphalt as well as dry cobblestones). Slight rear-wheel drift is perceptible. Perceptible uncontrolled motion can be felt from the rear on slippery road surfaces (wet blacktop and wet cobblestones).

- with riding modes Pro<sup>OE</sup>

### **DYNAMIC mode**

DYNAMIC mode is the most performance-oriented mode. The point at which the ASC/DTC system intervenes is even later, which means that even on dry asphalt drifting is possible with hard acceleration when cornering.

### **ABS**

- The rear wheel lift assistant is active in all modes.
- The ABS is set for use on public roads.
- In the RAIN, ROAD, and DYNAMIC riding modes, ABS Pro is fully available. The inclination the motorcycle has when braking in curves is reduced to a minimum.

- with Dynamic ESA<sup>OE</sup>

### **Dynamic ESA**

- In the RAIN, ROAD and DYNAMIC modes, damping variants HARD, NORMAL and SOFT can be selected.

Default setting for:

- RAIN: SOFT
- ROAD: NORMAL

- with riding modes Pro<sup>OE</sup>
- DYNAMIC: HARD

### **Changing between riding modes**

A mode change regarding functions in the engine control and the ASC/DTC is only possible when drive torque is not applied to the rear wheel.

To stop transmission of drive torque,

- motorcycle must be stopped with the ignition turned on,

or

- the throttle grip must have been turned back and no brake must have been actuated.

### **Tire pressure control (RDC)**

- with Tire Pressure Monitor (TPM)<sup>OE</sup>

### **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 the minimum speed is exceeded for the first time.



Minimum speed  
for transmission of  
TPC/RDC measured data:

min 6 mph (min 10 km/h)

Before initial reception of the tire inflation pressure, "--" is shown in the display for each tire. The sensors continue to transmit the measured readings for some time after the vehicle comes to a stop.



Duration of measured  
data transmission after  
motorcycle is stationary:

min 15 min

If an TPC/RDC control unit is fitted but the wheels have no sensors, a fault message is generated.

## Tire inflation pressure ranges

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

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

## Temperature compensation

The tire inflation pressure is temperature dependent, i.e. it increases or decreases together with the tire air temperature. The tire temperature is dependent on the outside temperature, the riding style and the length of the journey.



The tire pressures are shown adjusted for temperature on the multifunction display and are always relative to the following tire air temperature:

68 °F (20 °C)

Tire pressure gages at gas stations do not make any adjustment for the air temperature, the tire pressure indicated depends on the temperature of the air in the tire. As a result, in most cases the values displayed there do not match the values shown in the multifunction display.

## Tire pressure adjustment

Compare the TPC/RDC value in the multifunction display with the value on the back cover of the Rider's Manual. The difference between the two values must be compensated with the tire

inflation pressure tester at the filling station.

 Example
According to the Rider's Manual, the tire pressure should be as follows:
36.3 psi (2.5 bar)
The multifunction display shows the following figure:
33.4 psi (2.3 bar)
The shortfall is thus:
2.9 psi (0.2 bar)
The tester at the filling station shows:
34.8 psi (2.4 bar)
To obtain the correct tire pressure, that has to be increased to the following figure:
37.7 psi (2.6 bar)

## Shift assistant

- with gearshift assistant Pro<sup>OE</sup>

### Pro shift assistant

Your vehicle is equipped with a shift assistant originally developed for racing but now specially adapted for touring use. It allows you upshift and downshift under almost any load conditions and in virtually all engine-speed ranges without operating the clutch or accelerator.

### Benefits

- 70-80 % of all gear changes can be performed without using the clutch.
- Less movement between pilot and pillion due to shorter gear-change intervals.
- Throttle does not have to be closed when changing gear under acceleration.

- During deceleration and downshifts (throttle plate closed) the system blips the throttle to obtain the correct engine speed.
- Shifting times are faster than when the clutch is used to change gears.

For the system to detect the rider's intention to change gear, the previously stationary gear lever must be moved in the desired direction against the force of the spring and with a certain amount of "overtravel" at a standard to rapid travel speed, and then maintained in this position until execution of the shift is completed. No additional increase in shifting force is necessary during the gear shifting process. After the gear change is completed, the gear lever must be fully released before the Gear Shift Assistant Pro can execute a new gear change. When the gear

is changed using the shift assistant, the throttle setting (twist-grip position) must be kept constant before and during the gear-change sequence. Changing the position of the throttle grip while the shift is in progress can lead to cancellation of the function and/or shifting errors. No support is provided by the Gear Shift Assistant during gear changes made using the clutch.

### Downshifts

- Downshifts are assisted up to the speed at which the engine reaches maximum rpm in the gear to be engaged. Over-revving is thus prevented.

 Maximum engine speed
max 9000 min <sup>-1</sup>

### Upshifts

- Upshifting is supported until the idling speed is reached in the target gear.
- This prevents the idling speed from being dropped below.

 Idle speed
1150 min <sup>-1</sup> (Engine at operating temperature)

### Hill Start Control

- with Hill Start Control<sup>OE</sup>

### Function of the Hill Start Control

The Hill Start Control prevents an uncontrolled rolling back on slopes by means of targeted intervention in the partial integral ABS brake system, without the rider having to continuously operate the brake lever. When acti-

vating Hill Start Control the pressure in the rear brake system is thus built up in order to keep the motorcycle stationary on an inclined surface.

### Effects of the holding pressure on the behavior when driving off

- If a low brake pressure is used for holding, only a small amount of holding pressure is built up. The brakes release quickly when driving off. Driving off more softly is therefore possible. Additional turning of the throttle grip is hardly required.
- If a higher brake pressure is used for holding, a higher amount of holding pressure is built up. The brakes release a bit more slowly when driving off. Since more torque is required for driving off in this case, an additional turning of the throttle grip is necessary.

## Behavior when the vehicle is rolling or slipping

- If the vehicle rolls when Hill Start Control is active, the holding pressure increases.
- If the rear wheel slips, the brake will be released again after approx. 1 m. This prevents, for example, the vehicle slipping with a locked rear wheel.

## Releasing the brake when stopping the engine

The Hill Start Control is deactivated if the engine is stopped using the emergency off switch or if the side stand is folded out. In addition to the indicator and warning lights, the rider is to be made aware about the deactivation of the Hill Start Control by the following behavior:

## Brake warning jerk

- The brake is released briefly and immediately activated again.
- This causes a jerk that the rider can feel.
- The brake is released slowly.
- The vehicle is unbraked.
- The rider must brake the vehicle manually.



## NOTICE

When the ignition is switched off, the holding pressure is built up immediately and without brake warning jerk. ◀

## Maintenance

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## General instructions

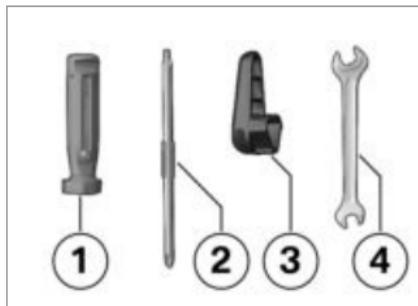
The "Maintenance" chapter describes work involving the checking and replacement of wear parts that can be performed with a minimum of effort.

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 an authorized workshop, preferably your authorized BMW Motorrad retailer.

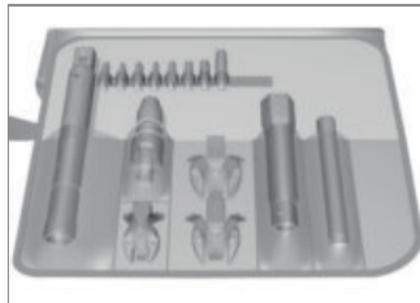
## Standard tool kit



- 1** Screwdriver handle
- 2** Reversible screwdriver insert  
Phillips PH1 and Torx T25
  - Removing rider`s seat (➡ 75).
  - Removing and installing body panels.
- 3** Tool for oil cap
  - Topping up engine oil (➡ 129).
  - Remove passenger seat (➡ 77).
  - Install the passenger seat (➡ 78).

- 4** Open-ended wrench  
Wrench size: 8/10 mm

## Service tool kit



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

## Front wheel stand

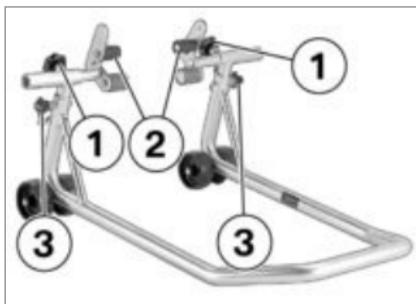
### Mounting front wheel stand

#### ATTENTION

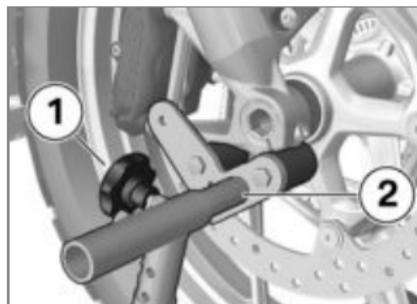
#### Use of the BMW Motorrad front wheel stand without an additional center or auxiliary stand

Component damage cause by tipping over

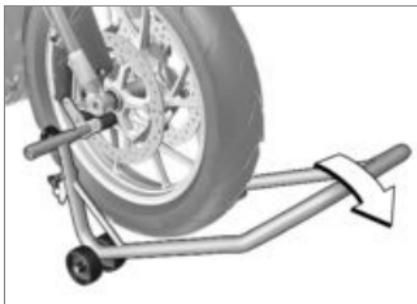
- Place the motorcycle on the center stand or an auxiliary stand before lifting it with the BMW Motorrad front wheel stand.◀
- Make sure ground is level and firm and place motorcycle on center stand.
- Use basic stand with front wheel mount. The basic stand and its accessories are available through your authorized BMW Motorrad retailer.



- Loosen mounting screw **1**.
- Push the two mounts **2** outward, continuing until the front suspension fits between them.
- Use locating pins **3** to set front wheel stand to desired height.
- Center front wheel stand relative to front wheel and push it against front axle.



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



### ATTENTION

#### Center stand retracts if motorcycle is lifted too high.

Component damage cause by tipping over

- When raising the motorcycle, make sure that the center stand remains on the ground.◀
- Apply uniform pressure to push front wheel stand down and raise motorcycle.

## Engine oil

### Check engine oil level

#### ATTENTION

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

Engine damage

- Only check the oil level after a longer journey or when the engine is warm.◀
- Switch off engine at operating temperature.
- Make sure ground is level and firm and place motorcycle on center stand.
- Wait five minutes to allow oil to drain to the oil pan.



- Read the oil level in the display **1**.



Specified level of engine oil

between MIN and MAX marking

If the oil level is below MIN mark:

- Topping up engine oil (➡ 129).

If oil level is above MAX mark:

- Have the oil level corrected at an authorized service facility, preferably an authorized BMW Motorrad retailer.

## Topping up engine oil

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



- Wipe area around oil filler opening to clean it.

- Remove the cover **2** on the oil filler with the oil cover tool **1**.
- Hold the oil cover tool **1** against the oil filler cover **2** and then turn it counterclockwise.
- Check engine oil level (➡ 128).



### ATTENTION

#### Use of too little or too much engine oil

Engine damage

- Always make sure that the oil level is correct.◀
- Add engine oil up to specified level.



Engine oil, quantity for topping up

max 1 quarts (max 0.95 l) (Difference between MIN and MAX)

- Check engine oil level (➡ 128).
- Install the oil filler cover **2**.

## Brake system

### Checking brake operation

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

If no clear pressure points are perceptible:



### ATTENTION

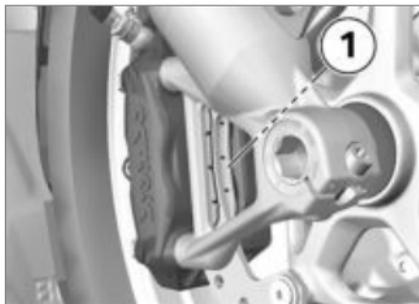
#### Improper working on the brake system

Endangering of the operating safety of the brake system

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

## Checking front brake pad thickness

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



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



Front brake-pad wear limit

0.04 in (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

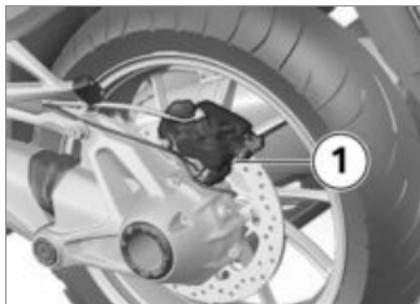
#### Dropping below the minimum pad thickness

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 at an authorized service facility, preferably an authorized BMW Motorrad retailer.

## Checking rear brake pad thickness

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



- Conduct a visual inspection of the brake pad thickness. Viewing direction: between splash guard and rear wheel toward brake pads **1**.



 Rear brake-pad wear limit

0.04 in (1.0 mm) (Only friction material without carrier plate.)

If wear limit is reached:

### **WARNING**

#### **Dropping below the minimum pad thickness**

Reduced braking action, damage to the brake

- In order to ensure the operating reliability of the brake system, make sure that the brake

pads are not worn beyond their minimum thickness. ◀

- Have the brake pads replaced at an authorized service facility, preferably an authorized BMW Motorrad retailer.

### **Check front brake fluid level**

#### **WARNING**

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

Considerably reduced braking performance caused by air in the brake system

- Stop riding immediately until fault is rectified.
- Check brake fluid level regularly. ◀
- Make sure ground is level and firm and place motorcycle on its center stand.

- Move handlebars into straight-ahead position.



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

### NOTICE

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



Front brake fluid level

Brake fluid, DOT4

The brake fluid level must not fall below the MIN mark. (Brake-fluid reservoir horizontal, motorcycle standing upright)

If brake fluid level falls below the approved level:

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

## Checking rear brake fluid level

### WARNING

#### Insufficient brake fluid in the brake-fluid reservoir

Considerably reduced braking performance caused by air in the brake system

- Stop riding immediately until fault is rectified.
- Check brake fluid level regularly. ◀
- Make sure ground is level and firm and place motorcycle on its center stand.



- Check level of brake fluid in 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. (Brake-fluid reservoir horizontal, motorcycle standing upright)

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.

## Clutch

### Check clutch function

- Pull back the clutch lever.
- » Pressure point must be clearly perceptible.

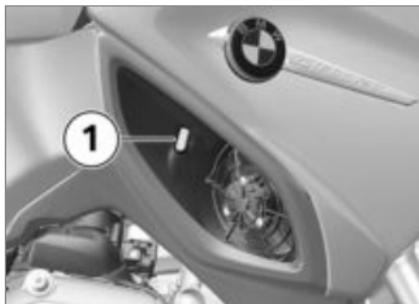
If no clear pressure point can be felt:

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

## Coolant

### Check coolant level

- Make sure ground is level and firm and park motorcycle.
- Allow the engine to cool down.



- Read off coolant level on expansion tank **1**.



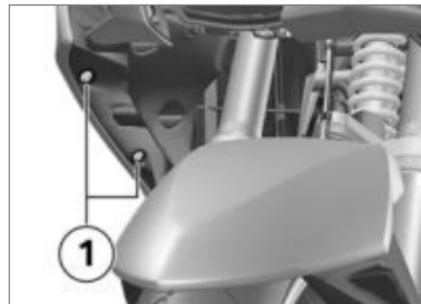
Coolant, specified level

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

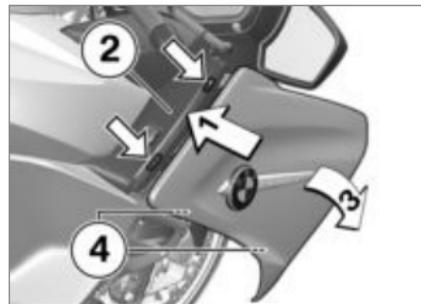
If coolant level drops below approved level:

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

## Topping up coolant



- Remove screws **1**.

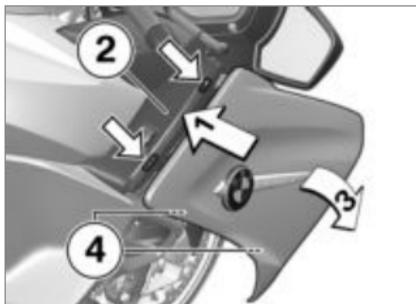


- Pull the front of the side fairing panel **3** outward.  
» Lugs **4** are pulled out of grommets.

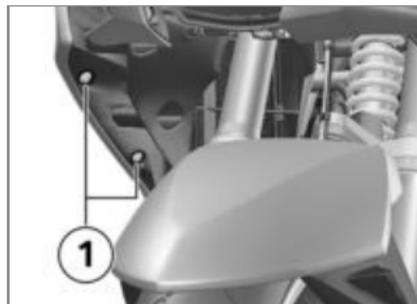
- Pull side fairing panel **1** upward out of side panel **2**, paying attention to lugs **arrows** when doing so.



- Open cap **1** of coolant expansion tank and add coolant up to specified level.
- Check coolant level (▮▮▮ 133).
- Close cap of coolant expansion tank.



- Locate side fairing panel **1** on side panel **2**, paying attention to position of lugs.
- Swivel side fairing panel **3** inward.
  - » Lugs **4** are pressed into grommets.



- Install screws **1**.

## Tyres

### Checking tyre pressure



**WARNING**

### Incorrect tire inflation pressure

Poorer handling characteristic of motorcycle, reduction of tire service life

- Ensure proper tire inflation pressure.◀

**WARNING****Automatic opening of vertically installed valve inserts at high speeds**

Sudden loss of tire inflation pressure

- Use valve caps with rubber sealing ring and screw on firmly. ◀
- Park motorcycle, ensuring that support surface is firm and level.
- Check tyre 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 tyre pressure is too low:

- Correct tyre pressure.

**Wheel rims and tyres****Check wheel rims**

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

**Checking tire tread depth****WARNING**

**Riding with heavily worn tyres**

Risk of accident due to poorer rideability

- If necessary, replace the tyres before the legally specified minimum tread depth is reached. ◀
- Make sure ground is level and firm and park motorcycle.
- 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.

## Muffler

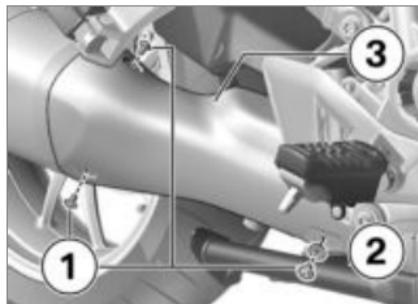
### Swing muffler outward

#### CAUTION

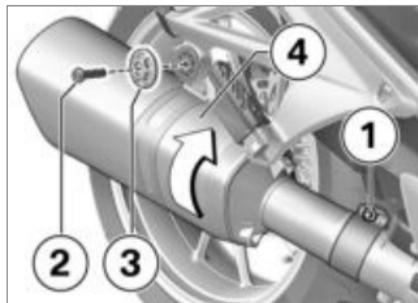
#### Hot exhaust system

Burn hazard

- Do not touch hot exhaust system. ◀
- Make sure ground is level and firm and park motorcycle on its center stand.
- Allow the muffler to cool down.



- Remove screws **1** at front with washer **2**.
- Take off muffler cover **3**.



- Loosen screw **1** of clip.
- Remove screw **2** and mounting plate **3**.

- Turn muffler **4** outward **clockwise**.

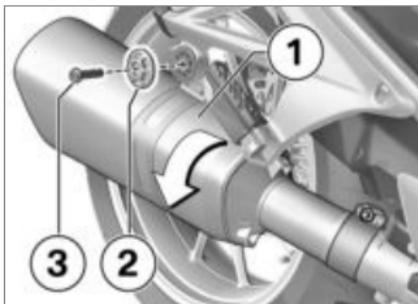
### Mounting muffler

#### 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. ◀

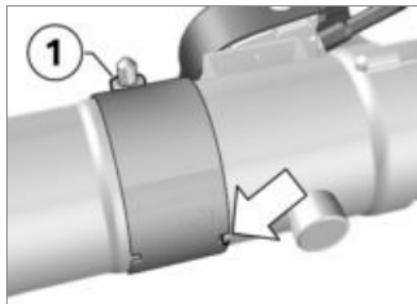


- Turn muffler **1** counterclockwise until it rests on passenger footpeg bracket.
- Install washer **2** and screw **3**.



Muffler on footpeg bracket

14 lb/ft (19 Nm)

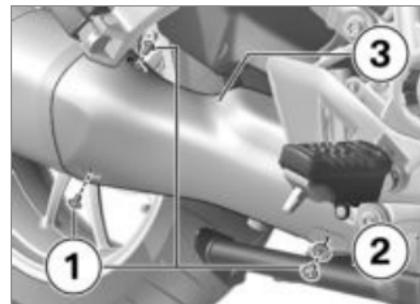


- Slide clamp **1** as far forward as possible and position it with notch in nose (**arrow**).
- Tighten clamp.



Clamp on muffler and exhaust manifold

16 lb/ft (22 Nm)



- Lay on muffler cover **3**.
- Install screws **1** at front with washer **2**.

## Wheels

### Tyre recommendation

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

BMW Motorrad recommends only using the tyres tested and approved by BMW Motorrad. Detailed information can be obtained from your authorized BMW Motorrad retailer or online at:

**bmw-motorrad.com**

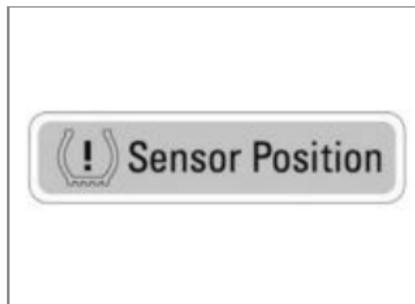
### **Affect of wheel sizes on suspension control systems**

The wheel sizes play a major role in the ABS and ASC/DTC suspension-control systems. The diameter and width of the wheels stored in the control unit have particular significance as the basis for all necessary calculations. A change in these sizes resulting from conversion to wheels not installed as standard equipment can seriously affect the control efficiency of these systems. The sensor rings required for wheel speed detection must also

match the installed control systems and may not be replaced. If you want to equip your motorcycle with different wheels, please contact a specialist service facility, preferably a BMW Motorrad retailer. In some cases the data stored in the control units can be adapted for the new wheel sizes.

### **RDC label**

– with Tire Pressure Monitor (TPM)<sup>OE</sup>



### **ATTENTION**

#### **Improper tire removal**

Damage to the TPC/RDC sensors

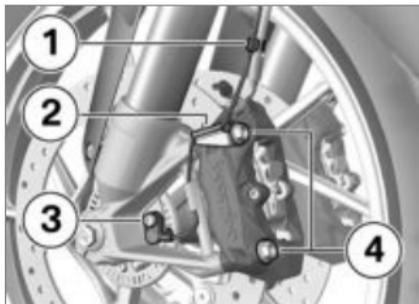
- Inform a specialist service facility or an authorized BMW Motorrad retailer on the fact that the wheel is equipped with a TPC/RDC sensor.◀

On motorcycles equipped with RDC, a corresponding label is located on the rim at the position of the TPC/RDC sensor. During a tire change, ensure that the TPC/RDC sensor is not dam-

aged. Inform the BMW Motorrad partner or the specialist workshop about the TPC/RDC sensor.

## Remove front wheel

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



- Remove ABS sensor cable from retaining clips **1** and **2**.
- Remove screw **3** and extract the ABS sensor from its socket.
- Mask off areas of wheel rim that could be scratched in the

process of removing the brake calipers.

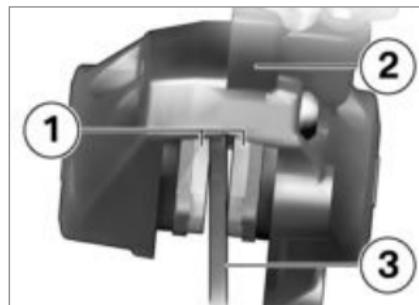


## ATTENTION

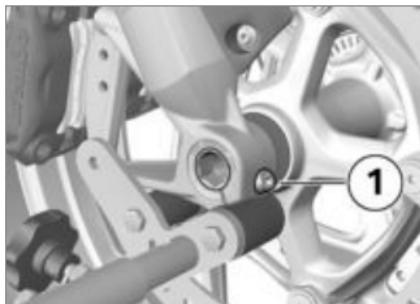
### Unintentional pressing together of brake pads

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

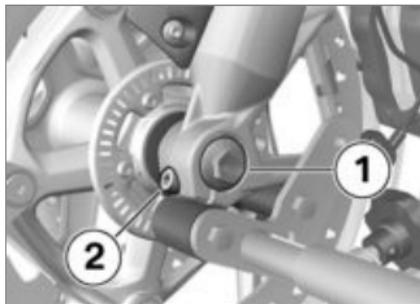
- Do not actuate the brakes with the brake caliper removed. ◀
- Remove securing screws **4** of left and right brake calipers.



- Push brake pads **1** slightly apart by turning the brake caliper **2** back and forth against the brake rotor **3**.
- Carefully pull brake calipers back and outward to remove them from the brake rotors.
- Raise front of motorcycle, preferably using a BMW Motorrad front wheel stand, continuing until the wheel rotates freely.
- Mounting front wheel stand (▶▶ 127).

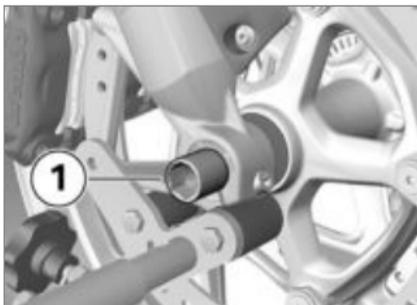


- Remove right-hand axle clamping screw **1**.

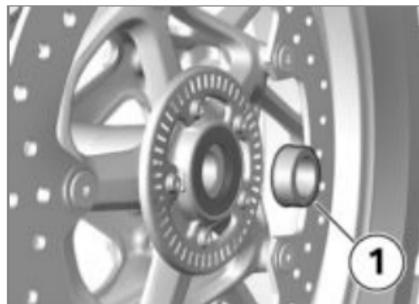


- Remove screw **1**.
- Remove left axle clamping screw **2**.

- Slightly press the quick-release axle inward for a better grip on the right side.



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



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

## Installing the front wheel

### **WARNING**

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

Malfunctions during control interventions by ABS and ASC/DTC

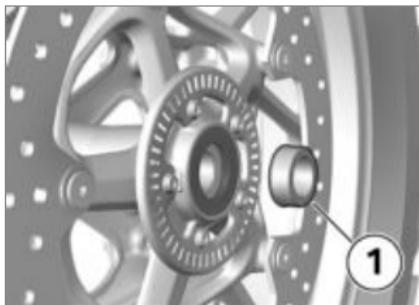
- Please see the information on the effect of wheel sizes on the ABS and ASC/DTC chassis control systems at the beginning of this chapter. ◀

## ATTENTION

### Tightening of screwed connections with incorrect tightening torque

Damage or loosening of screwed connections

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



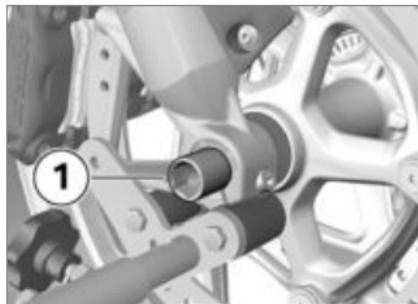
- Mount spacing bushing **1** on left side in wheel hub.

## ATTENTION

### Front wheel installation opposite the running direction

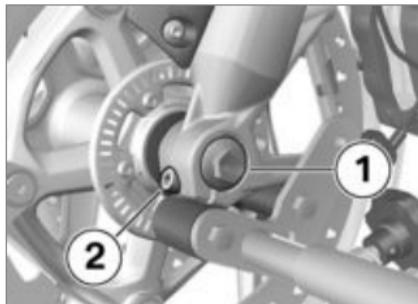
Accident hazard

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



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

- Mounting front wheel stand (→ 127).



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



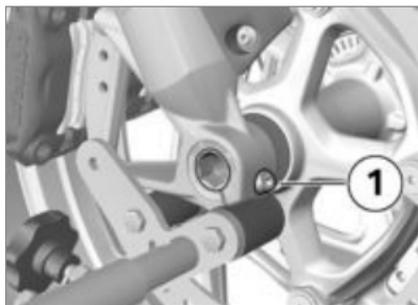
Quick-release axle in telescopic fork

22 lb/ft (30 Nm)

- Tighten left axle clamping screw **2** with appropriate torque.

 Clamping screw for quick-release axle in telescopic fork

14 lb/ft (19 Nm)



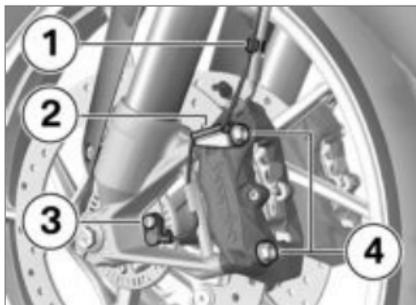
- Tighten the right-hand axle clamping screw **1** with the specified torque.

 Clamping screw for quick-release axle in telescopic fork

14 lb/ft (19 Nm)

- Remove front wheel stand.

- Slide the brake calipers on the left-hand and right-hand side onto the brake rotors.



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

 Brake caliper on telescopic forks

28 lb/ft (38 Nm)

- Remove adhesive tape from wheel rim.

 **WARNING**

**Brake pads do not contact the brake disc**

Risk of accident due to delayed braking effect.

- Before driving off, check that the braking effect kicks in without any delay. ◀
- Engage the brakes repeatedly, continuing until the brake pads seat against the rotors.
- Fix ABS sensor lead in retaining clips **1** and **2**.
- Insert ABS sensor into socket and fit screw **3**.

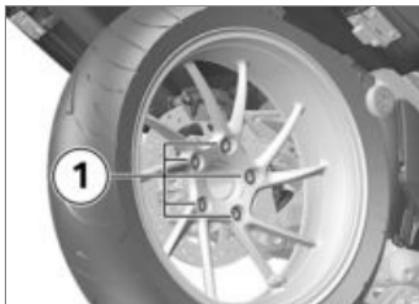
 Wheel speed sensor on fork

Joint compound: Micro-encapsulated or medium-strength screw lock

6 lb/ft (8 Nm)

## Remove rear wheel

- Swing muffler outward (▶▶▶ 137).



- Shift into first gear.
- Remove bolts **1** of rear wheel, holding 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 and ASC/DTC

- Please see the information on the effect of wheel sizes on the ABS and ASC/DTC chassis

control systems at the beginning of this chapter. ◀

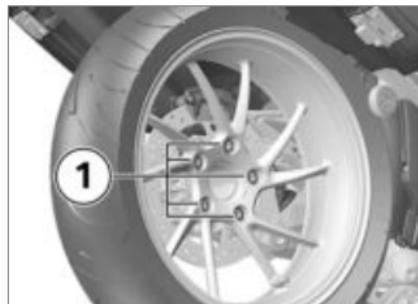


### ATTENTION

#### Tightening of screwed connections with incorrect tightening torque

Damage or loosening of screwed connections

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



- Install wheel studs **1** with specified torque.



Tighten rear wheel on wheel flange

Tightening sequence: Tighten crosswise

44 lb/ft (60 Nm)

- Mounting muffler (➡ 138).

## Light sources

### Replacing low-beam light source in headlight

#### NOTICE

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

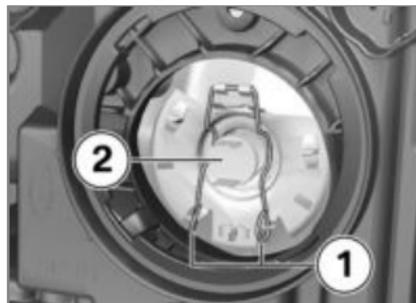
- Park motorcycle, ensuring that support surface is firm and level.
- Switch off ignition.



- Remove cover **1** by turning it counterclockwise to replace low-beam headlight bulb.



- Disconnect plug **1**.

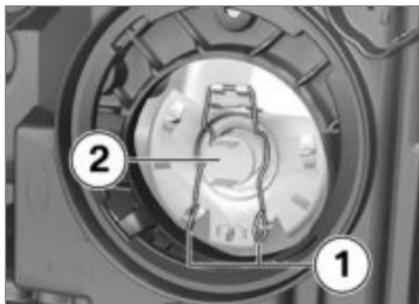


- Remove wire spring **1** from catch and fold to one side.
- Remove bulb **2**.
- Replace defective light source.

 Bulbs for low-beam headlight

H7 / 12 V / 55 W

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



- Insert bulb **2**, ensuring that the lug is in the correct position.

#### NOTICE

The alignment of the bulb may differ from the illustration. ◀

- Locate wire spring **1** in the catch.



- Connect connector **1**.



- Place cap **1** in position and fix by turning it clockwise.

## Replacing high-beam headlight light source

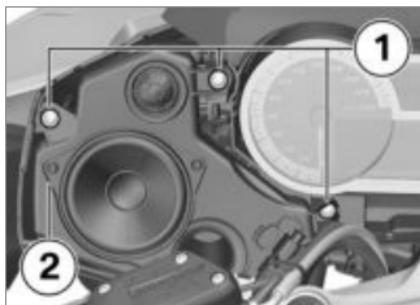
#### NOTICE

The description below steps you through the procedure for replacing the left bulb. Replacement is carried out in the same way on the right side. ◀

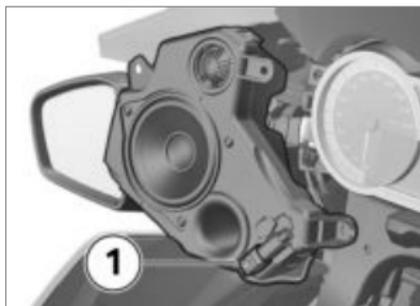
- Make sure ground is level and firm and park motorcycle.
- Switch off ignition.



- Remove screws **2**.
- Remove speaker cover **1** sideways to the left.



- Remove screws **1**.
- Carefully remove speaker unit **2**, paying attention to the electrical connector.



- Disconnect plug connection **1**.



- Remove cover **1** by pulling on lever.



- Disconnect plug **1**.



- Release wire spring **1** from catch on left and right and fold down.
- Remove bulb **2**.
- Replace defective light source.


 Bulb for high-beam headlight

H1 / 12 V / 55 W

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



- Fit bulb **2**, ensuring that the lug is in the correct position.

#### NOTICE

The alignment of the bulb may differ from the illustration. ◀

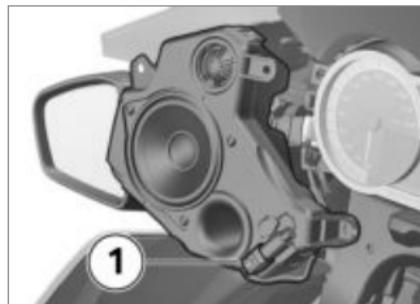
- Fit wire spring **1**.



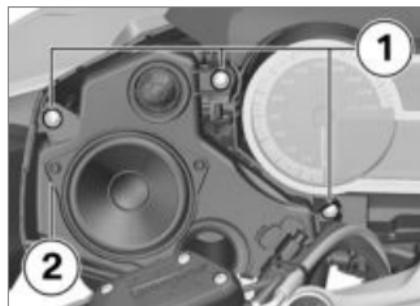
- Connect connector **1**.



- Install cover **1**.



- Connect electrical connector **1**.



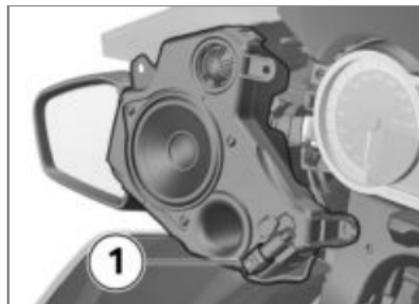
- Locate speaker unit **2** in mount.
- Install screws **1**.



- Place speaker cover **1** in position and fit screws **2**.



- Remove screws **2**.
- Remove speaker cover **1** sideways to the left.



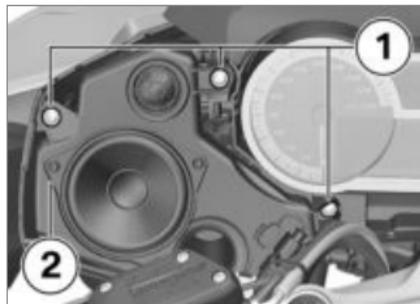
- Disconnect plug connection **1**.

## Replacing light source for parking light

### NOTICE

The description below steps you through the procedure for replacing the left bulb. Replacement is carried out in the same way on the right side. ◀

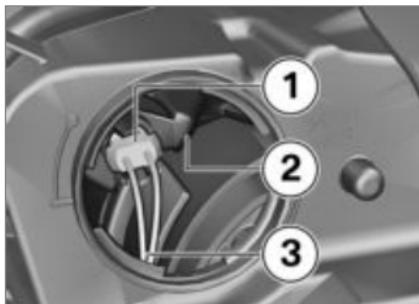
- Make sure ground is level and firm and park motorcycle.
- Switch off ignition.



- Remove screws **1**.
- Carefully remove speaker unit **2**, paying attention to the electrical connector.



- Remove cover panel **1** by turning counterclockwise.



- Remove bulb holder **1** from headlight housing **2**, taking care not to pull cable **3**.



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

- Replace defective light source.



Bulb for parking light

W5W / 12 V / 5 W

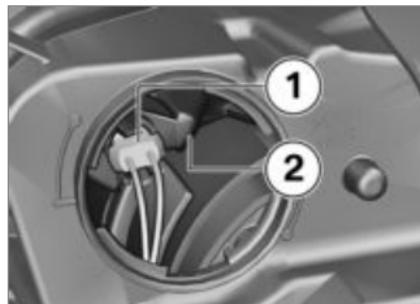
– with Headlight Pro<sup>OE</sup>

Lighting rings, integrated into headlight <

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



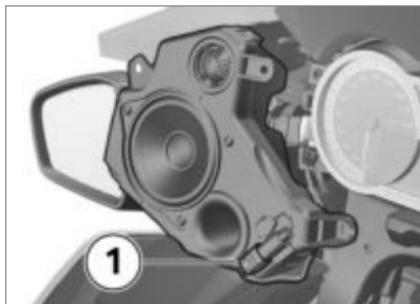
- Insert light source **1** in light source socket.



- Insert bulb holder **1** into headlight housing **2**.



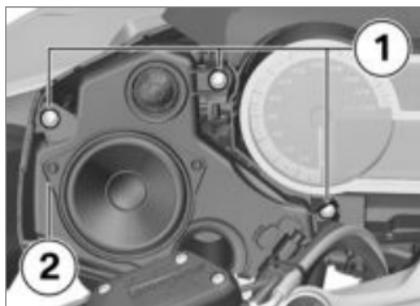
- Install cover **1** by turning clockwise.



- Connect electrical connector **1**.



- Place speaker cover **1** in position and fit screws **2**.



- Locate speaker unit **2** in mount.
- Install screws **1**.

### Replacing LED tail light

The LED tail light can only be completely replaced.

- Please contact a specialist service facility for this purpose, preferably an authorized BMW Motorrad retailer.

### Replacing LED turn indicator

- LED turn indicators can only be replaced as a complete unit. Please contact a specialist service facility for this pur-

pose, preferably an authorized BMW Motorrad retailer.

### Replacing LED supplementary headlight

– with LED auxiliary headlight<sup>OA</sup>

The LED supplementary headlights can only be replaced as a complete unit; it is not possible to replace individual LEDs. Please contact a specialized workshop, preferably an authorized BMW Motorrad retailer.

### Jump-starting



#### ATTENTION

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

Cable fire or damage to the motorcycle electronics

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

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

Danger of short circuit

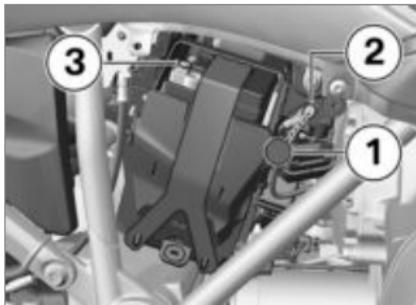
- Use jump leads fitted with fully insulated crocodile clips at both ends.◀

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

Damage to the motorcycle's electronics

- The battery of the donor motorcycle must have a voltage of 12 V.◀
- Park motorcycle, ensuring that support surface is firm and level.
- Remove battery cover (▶▶ 154).
- Do not disconnect the battery from the onboard electrical sys-

tem when jump-starting the engine.



- Remove the protective cap **1**.
- Begin by connecting one end of the red jumper cable to the positive battery connection point **2** on the discharged battery and the other end to the positive terminal of the donor battery.
- Connect black jumper cable to negative terminal on donor battery and then to negative terminal **3** of discharged battery.

- 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 the protective cap.
- Installing battery cover (▶▶ 156).

## 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 surface of battery clean and dry.
- Do not open battery.
- Do not top up with water.
- Be sure to read and comply with the instructions for charging the battery on the following pages.
- Do not turn battery upside down.



#### ATTENTION

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

Total discharge of battery leading to a rejection of warranty claims

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



#### NOTICE

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

### Charge connected battery



#### ATTENTION

#### Charging the battery connected to the vehicle using the battery terminals

Damage to the motorcycle's electronics

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



#### ATTENTION

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

Damage to the motorcycle's electronics

- Always charge a fully discharged battery (battery voltage below 9 V; with the ignition switched on, the indicator lights and the multifunction display remain

off) directly at the poles of the **disconnected** battery.◀



## ATTENTION

### Unsuitable chargers connected to the power socket

Damage to charger and vehicle electronics

- Use suitable BMW chargers. The correct charger is available through your authorized BMW Motorrad retailer.◀
- 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 from the terminals of the battery disconnected from the vehicle.◀

### Charging disconnected battery

- Charge battery using a suitable charger.
- Comply with operating instructions of charger.
- Once battery is fully charged, disconnect charger's terminal clips from battery terminals.

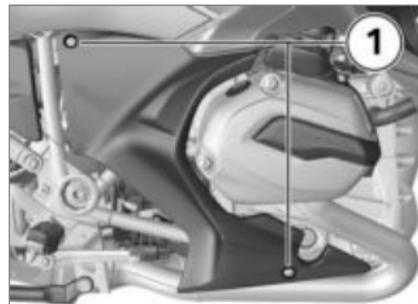


## NOTICE

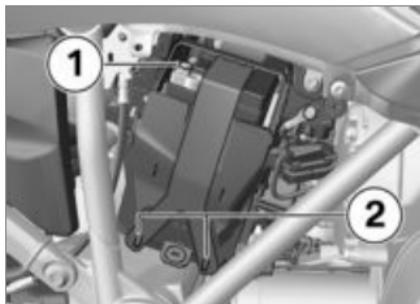
In the case of longer periods when the motorcycle is not being used, the battery must be

recharged regularly. See the instructions for caring for your battery. Always fully recharge the battery before returning it to use.◀

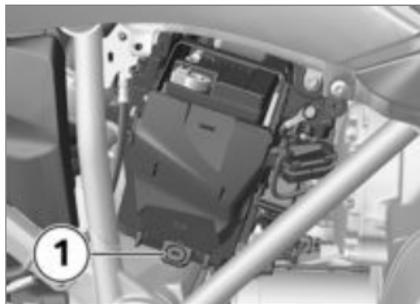
### Removing battery



- Switch off ignition.
  - Remove screws **1**.
  - Remove battery cover.
- with anti-theft alarm system (DWA)<sup>OE</sup>
- Switch off DWA if necessary.◀



- Remove negative battery cable **1** and rubber strap **2**.



- Pull mounting plate on position **1** outward and remove it upward.

- Lift battery slightly out of holder sufficiently for positive terminal to be accessible.



- Remove positive battery cable **1** and pull out battery.  
» The battery has been removed.

## Install battery



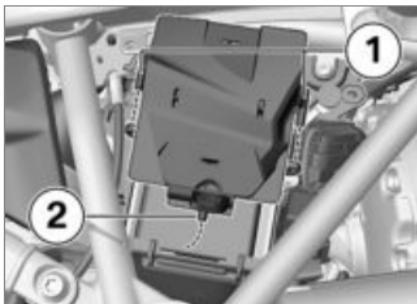
- Fasten positive battery cable **1**.



### NOTICE

If the 12 V battery is installed incorrectly, or if the terminals are swapped (e.g. when jump-starting), the fuse for the alternator regulator may blow.◀

- Slide battery into holder.

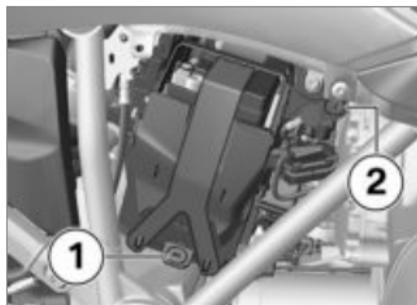


- First press retaining plate under the battery at point **2** and then locate it in the mounts **1**.



- Fasten negative battery cable **1**.

- Fasten battery with rubber strap **2**.



- Insert the battery cover into mount **1** and press into mounts **1** and **2**.

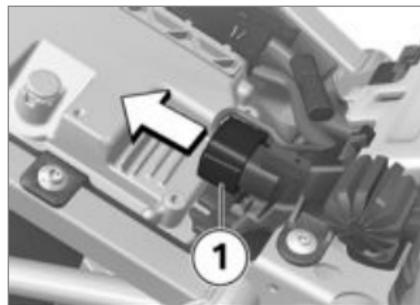


- Install screws **1**.

- Switch on the ignition.
- Set the time in Settings - Clock and set the date in Settings - Date.

## Fuses

### Replace fuses



- Switch off ignition.
- Removing rider's seat (75).
- Disconnect plug **1**.



### ATTENTION

#### Bypassing defective fuses

Risk of short circuit and fire

- Do not bypass defective fuses.

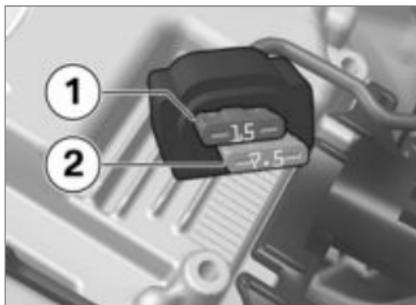
- Replace defective fuses with new fuses. ◀
- Consult the fuse assignment diagram and replace the defective fuse.

## NOTICE

If the fuses blow frequently, have the electrical system checked by an authorized specialized workshop, preferably an authorized BMW Motorrad retailer. ◀

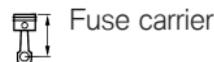
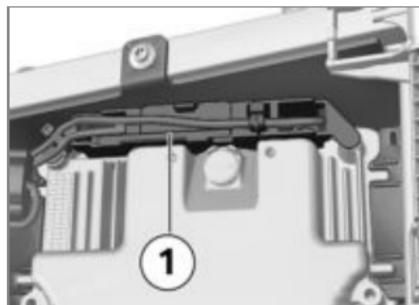
- Installing driver's seat (➡ 76).

## Fuse assignments



15 A (Slot 1: instrument cluster, anti-theft alarm system (DWA), ignition lock, diagnostic socket, Topcase light)

7.5 A (Slot 2: left multifunction switch, Tire Pressure Monitor (TPM), audio system)



50 A (Fuse 1: Voltage regulator)

## Diagnostic connector

### Removing the diagnostic connector

#### CAUTION

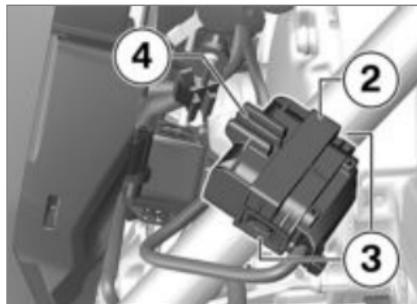
**Incorrect procedure followed when disconnecting the data link connector for the On-Board Diagnostics.**

Motorcycle experiences malfunctions

- Only have the data link connector disconnected by a specialist workshop or other authorized persons during your next BMW Service appointment.
- Have the work performed by appropriately trained staff.
- Refer to the vehicle manufacturer specifications.◀
- Remove battery cover (➔ 154).



- Push on hook **1** and pull diagnostic connector **2** up and out.

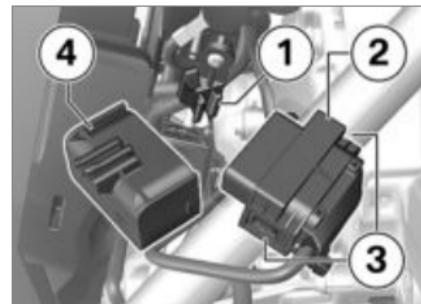


- Press locks **3** on both sides.
- Remove diagnostic connector **2** from bracket **4**.
- » The diagnosis and information system interface can be con-

nected at the diagnostic connector **2**.

### Secure the data link connector

- Disconnect the diagnosis and information system interface.



- Insert diagnostic connector **2** into bracket **4**.
- » Locks **3** engage on both sides.
- Mount bracket **4** onto fixture **1**.



- Make sure that hook **5** engages.
- Installing battery cover (▶▶▶ 156).



## **Accessories**

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## General notes

### CAUTION

#### Use of products from other manufacturers

##### Safety risk

- BMW Motorrad cannot examine or test each product of outside origin to ensure that it can be used on or in connection with BMW motorcycles without constituting a safety hazard. Nor is this guarantee provided when the official approval of a specific country has been granted. Tests conducted by these instances cannot make provision for all operating conditions experienced by BMW motorcycles and, consequently, they are not sufficient in some circumstances.
- Use only parts and accessories approved by BMW for your motorcycle. ◀

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

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

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

**[bmw-motorrad.com/accessories](http://bmw-motorrad.com/accessories)**

## Onboard power sockets

### Connection of electrical devices

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

### 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 deactivation

- The onboard sockets are automatically switched off during starting.
- To reduce the load on the electrical system, the power

sockets are switched off a certain amount of time after the ignition is switched off. 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.



Automatic power socket cut-out after ignition is switched off

max 15 min

- 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.

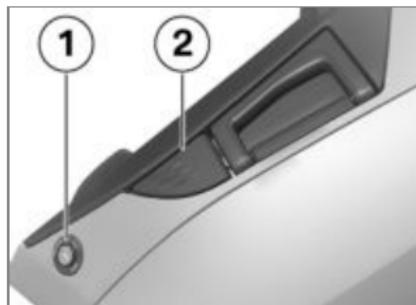
## Case

### Open case

- with central locking system<sup>OE</sup>
- If applicable, open the central locking.◀



- Turn the key to the in the case lock to the position indicated by the dot.



- Press lock barrel **1** downward.  
» Release lever **2** pops up.
- Pull the release lever all the way up and open the lid of the case.

## Close case



- Pull release lever **2** all the way up.
- Close case lid and press down. Ensure that no luggage is trapped between lid and case.



### NOTICE

The case can also be locked if the lock is in the LOCK position. Under such circumstances, ensure that the ignition key is not in the case. ◀

- Push release lever **2** down, continuing until it engages.

- Turn key to LOCK position in pannier lock and remove.

## Remove case



- Turn key to RELEASE position in pannier lock.
  - » Handle pops out.



- Pull carry handle **3** up as far as it will go.
  - » Case is released and can be removed.

## Mount case

- Fold up handle as far as possible.



- Insert case in brackets **4**.



- Press handle **3** down until it engages.
- Turn key to LOCK position in pannier lock and remove.

## Maximum payload and maximum speed

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

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

The following values apply to the combination described here:

	Maximum speed when riding with a loaded case
max 112 mph (max 180 km/h)	
	Payload per case
max 22 lbs (max 10 kg)	

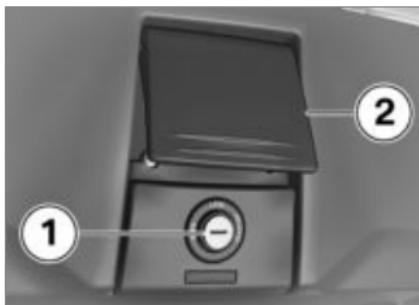
## Topcase

### Opening topcase

- with topcase<sup>OA</sup>
- with central locking system<sup>OE</sup>
- If applicable, open the central locking.<



- Turn the key to the in the topcase lock to the position indicated by the dot.



- Press lock barrel **1** forward.  
» Release lever **2** pops up.
- Pull the release lever all the way up and open the lid of the topcase.

### Close topcase

– with topcase<sup>OA</sup>



- Pull release lever **2** all the way up.
- Close topcase lid and hold it down. Ensure that no luggage is trapped between lid 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.◀

- Push release lever **2** down, continuing until it engages.

- Turn key in topcase lock to the LOCK position and remove.

### Remove topcase

- Removing rider's seat (▶▶ 75).
  - Remove passenger seat (▶▶ 77).
- with topcase<sup>OA</sup>



- Disconnect plug connection **1**.
- Thread out the connector from the topcase to the rear.
- Open topcase.
- If applicable, empty the topcase and lift out the bottom mat.



- Push slide latch **2** toward the outside and hold it in this position.
- Turn rotary fastener **3** in the direction indicated by the RELEASE arrow.
- » Release warning **4** is visible.
- Close topcase.



- Raise the rear of the topcase and pull it off luggage rack.<
- Install the passenger seat (▮▮▮ 78).
- Installing driver's seat (▮▮▮ 76).

### Mounting topcase

- Removing rider's seat (▮▮▮ 75).
- Remove passenger seat (▮▮▮ 77).
- with topcase<sup>OA</sup>
- If applicable, empty the topcase and lift out the bottom mat.



- Set the topcase on the luggage carrier.
- Opening topcase (▮▮▮ 165).



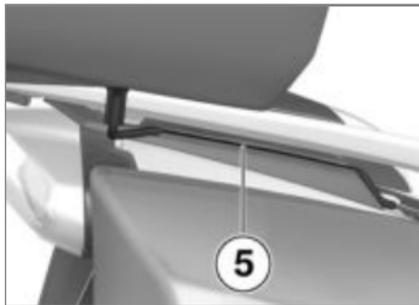
- Turn rotary fastener **3** as far as it will go in the direction indicated by the LOCK arrow

while pressing down on the back edge of the topcase.

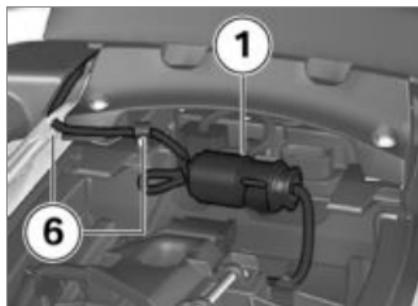
» Release warning **4** is no longer visible.

If the release warning is still visible the topcase is not correctly secured.

- Make sure that the topcase is correctly located on the pannier rack.



- Route the connecting cable forward in cable guide **5**.



- Work the cable into position at positions **6**.
- Close plug connection **1**.
- Install the passenger seat (►► 78).
- Installing driver's seat (►► 76).

### Maximum payload and maximum speed

Observe maximum payload and maximum speed as indicated on label in the topcase.

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

The following values apply to the combination described here:

	Maximum speed when riding with a loaded topcase
max 112 mph (max 180 km/h)	
	Payload of Topcase
max 11 lbs (max 5 kg)	

## Navigation system

### Securely fasten navigation device

- with navigation system<sup>OA</sup>
- with preparation for navigation system<sup>OE</sup>



### ATTENTION

### Dust and dirt on the contacts of the Mount Cradle

Damage to the contacts

- Reinstall the cover after end of each drive.◀



## NOTICE

The locking system of the Mount Cradle offers no protection against theft. Remove the navigation system and store in a safe place after every drive.◀



- Actuate lock **1** and remove the cover **2**.



- First, place the navigation device **1** in the fixture and then pivot backward **2**.
- Press on the navigation device at the upper edge until it engages.



- Check that the navigation device is secure in the cradle. The catch **1** must be fully engaged. At that point, the catch mechanism should be pressed flat and no longer visible.

### Remove navigation device

- with navigation system<sup>OA</sup>
- with preparation for navigation system<sup>OE</sup>



- Actuate the lock **1** and remove the navigation device **2**.

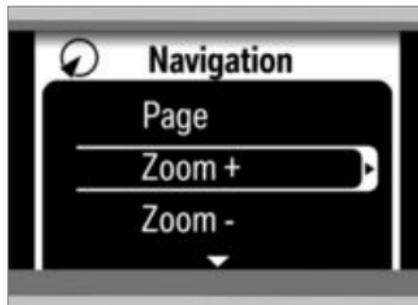


- Install cover **2**.
- Check that the cover is secure in the cradle. The upper retain-

ing cap **1** must be completely engaged.

## Operating the navigation system

- with preparation for navigation system<sup>OE</sup>
- Switch on ignition if necessary.
- Call up the **Navigation** menu.



The options for using the navigation system appear on the display.

- **Page**: the display can be switched from view to view;

the choices are the main menu, map and on-board computer.

- **Zoom +**: performs functions marked with a + in the navigation system. In the map view, for instance, the view zooms in on the map detail.
- **Zoom -**: performs functions marked with a - in the navigation system. In the map view, for instance, the view zooms out from the map detail.
- **Speak**: the last navigation announcement is spoken again. The announcement is spoken again even if automatic spoken announcements have been switched off in the settings of the navigation system.
- **Mute**: automatic spoken announcements are switched off and on.
- **Display Off**: the display of the navigation system is switched off and on.

- Select desired operation and carry it out by pressing the Multi-Controller to the right.

## Special functions

- with preparation for navigation system<sup>OE</sup>

Due to integration of the BMW Motorrad Navigator V, there may be differences from the descriptions in the instruction manual for the Navigator.

## Reserve fuel level warning

The settings for the fuel gauge allow you to define a distance that is covered per tankful of fuel. The motorcycle transmits the figure for residual travel range on the fuel remaining in the tank to the Navigator GPS receiver, rendering manual entry of this information redundant.

## Time and date

The Navigator GPS receiver transmits the time and date to the motorcycle. Transfer of this data to the instrument cluster must be activated in the cluster's SETUP menu.

## Security settings

The BMW Motorrad Navigator V can be secured against unauthorized use with a four-digit PIN (Garmin Lock). When this function is activated, once the Navigator GPS receiver is cradled on the motorcycle and the ignition is switched on you will receive a prompt asking whether the motorcycle should be added to the list of secure vehicles. If you confirm this question by answering "yes" then the Navigator will save the vehicle identification number of this vehicle.

A maximum of five VINs can be saved in this way.

A PIN entry will no be required when this Navigator GPS unit is activated by turning on the ignition switch in any of these vehicles.

Removing the Navigator GPS receiver from the motorcycle while it is switched on will launch a new PIN request as a security measure.



## 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 CareProducts have been materials tested, laboratory tested, and field tested and provide optimum care and protection for the materials used in your vehicle.



### ATTENTION

#### Use of unsuitable cleaning and care agents

Damage to motorcycle parts

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

## Washing your motorcycle

BMW Motorrad recommends that you use BMW Insect Remover to soften and wash off insects and stubborn dirt from painted parts before washing the motorcycle.

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

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

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



### WARNING

**Damp brake disks and brake pads after washing the mo-**

## torcycle, after riding through water or in the rain

Poorer braking action, accident hazard

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



### ATTENTION

#### Increased effect of salt caused by warm water

Corrosion

- Only use cold water to remove road salt. ◀



### ATTENTION

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

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

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

## Cleaning sensitive motorcycle parts

### Plastics



#### Use of unsuitable cleaning agents

Damage to plastic surfaces

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

#### Fairings and panels

Clean fairings and panels with water and BMW plastic cleaner.

### Windshields and lenses are manufactured in plastic

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



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



Clean with water and sponge only.



Do not use chemical cleansers.

### Chrome

Carefully clean chrome parts with plenty of water and BMW car shampoo, especially if the motorcycle has been exposed to gritting salt. Use chrome polish for additional treatment.

### Radiator

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



#### Bending of radiator fins

Damage to radiator fins

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

### Rubber parts

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



#### Use of silicone sprays for care of rubber seals

Damage to rubber seals

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

## Paint care

Washing the vehicle on a regular basis will help prevent long-term damage from harmful substances, and is especially important when your vehicle is used in areas with high levels of air pollution or where natural contaminants such as tree resin and pollen are present.

At the same time, you should remove particularly aggressive materials immediately; otherwise changes in the paint and discoloration can occur. These include spilled fuel, oil, grease and brake fluid as well as bird droppings. It is advisable to use BMW Car Polish or BMW Paint Cleaner in this case.

Contamination on the paint finish is particularly easy to see after the motorcycle has been washed. Remove such marks as soon as possible using white spirit or methylated spirits on

a clean cloth or cotton pad. BMW Motorrad recommends using BMW tar remover for removing tar spots. Then add a protective wax coating to the paint at these locations.

## 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.

## Store motorcycle

- Clean motorcycle.
- Completely fill the motorcycle's fuel tank.
- Removing battery (▣▣▣ 154).

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

## Return motorcycle to use

- Remove the protective wax coating.
- Clean motorcycle.
- Install battery (▣▣▣ 155).
- Observe checklist (▣▣▣ 96).

## Technical data

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## Screw connections

Front wheel	Value	Valid
<b>Brake caliper on telescopic forks</b>		
M10 x 65	28 lb/ft (38 Nm)	
<b>Clamping screw for quick-release axle in telescopic fork</b>		
M8 x 35	14 lb/ft (19 Nm)	
<b>Wheel speed sensor on fork</b>		
M6 x 16 Micro-encapsulated or medium-strength screw lock	6 lb/ft (8 Nm)	
<b>Quick-release axle in telescopic fork</b>		
M12 x 20	22 lb/ft (30 Nm)	

<b>Rear wheel</b>	<b>Value</b>	<b>Valid</b>
<b>Tighten rear wheel on wheel flange</b>		
M10 x 1.25 x 40	<b>Tightening sequence: Tighten cross-wise</b>	
	44 lb/ft (60 Nm)	
<b>Exhaust system</b>	<b>Value</b>	<b>Valid</b>
<b>Muffler on footpeg bracket</b>		
M8 x 35	14 lb/ft (19 Nm)	
<b>Clamp on muffler and exhaust manifold</b>		
	16 lb/ft (22 Nm)	
<b>Mirror arm</b>	<b>Value</b>	<b>Valid</b>
<b>Mirror on bracket</b>		
M6 x 50	6 lb/ft (8 Nm)	

## Fuel

Recommended fuel quality	Super unleaded (max. 10 % ethanol, E10) 89 AKI (95 ROZ/RON) 89 AKI
Alternative fuel quality	Regular unleaded (restrictions with regard to power and fuel consumption. If the engine should for example be operated with 91 RON in countries with lower fuel quality, the motorcycle must be respectively programmed first by your authorized BMW Motorrad retailer.) 87 AKI (91 ROZ/RON) 87 AKI
Usable fuel quantity	Approx. 6.6 gal (Approx. 25 l)
Reserve fuel quantity	Approx. 1.1 gal (Approx. 4 l)
Emission standard	Euro 4

## Engine oil

Engine oil, capacity	max 1.1 gal (max 4 l), with filter replacement
Specification	SAE 5W-40, API SL/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 Ultimate oil.
Engine oil, quantity for topping up	max 1 quarts (max 0.95 l), Difference between MIN and MAX

**BMW recommends** **ADVANTEC**  
ORIGINAL BMW ENGINE OIL

## Engine

Engine number location	Lower right of engine block beneath the starter
Engine type	122EN
Engine design	Air/liquid-cooled two-cylinder, four-stroke opposed-twin engine with two spur gear-driven overhead camshafts and one counterbalance shaft
Displacement	1170 cc (1170 cm <sup>3</sup> )
Cylinder bore	4 in (101 mm)
Piston stroke	2.9 in (73 mm)

Compression ratio	12.5:1
Rated output	125 hp (92 kW), at engine speed: 7750 min <sup>-1</sup>
Torque	92 lb/ft (125 Nm), at engine speed: 6500 min <sup>-1</sup>
Maximum engine speed	max 9000 min <sup>-1</sup>
Idle speed	1150 min <sup>-1</sup> , Engine at operating temperature

## Clutch

Clutch design	Multi-disk oil-bath clutch, slipper clutch
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## Transmission

Transmission design	Dog-engagement 6-speed transmission with helical gears
Transmission gear ratios	1.000 (60:60 teeth), Primary gear ratio 1.650 (33:20 teeth), Transmission input ratio 2.438 (39:16 teeth), 1st gear 1.714 (36:21 teeth), 2nd gear 1.296 (35:27 teeth), 3rd gear 1.059 (36:34 teeth), 4th gear 0.943 (33:35 teeth), 5th gear 0.848 (28:33 teeth), 6th gear 1.061 (35:33 teeth), Transmission output ratio

## Rear-wheel drive

Type of final drive	Shaft drive with bevel gears
Type of rear suspension	Cast-aluminum single swing arm with BMW Motorrad paralever
Gear ratio of final drive	2.75 (33/12 teeth)

## Frame

Frame design	Steel-tube frame with partially self-supporting drive unit, aluminum rear frame
Location of type plate	Frame at front left on steering head
Location of the vehicle identification number	Frame at front right on steering head

## Chassis and suspension

<b>Front wheel</b>	
Type of front suspension	BMW Telelever, upper fork bridge tilt decoupled, leading link mounted in engine and on telescopic fork, centrally positioned spring strut supported on leading link and frame
Design of the front-wheel suspension	Central spring strut with coil spring
– with Dynamic ESA <sup>OE</sup>	Central spring strut with coil spring and expansion tank, electrically adjustable rebound-stage and compression damping
Spring travel, front	4.7 in (120 mm), on wheel
<b>Rear wheel</b>	
Type of rear suspension	Cast-aluminum single swing arm with BMW Motorrad paralever
Type of rear suspension	Central spring strut with coil spring, adjustable rebound-stage damping and spring preload
– with Dynamic ESA <sup>OE</sup>	Central spring strut with coil spring and expansion tank, electrically adjustable rebound-stage and compression damping, electrically adjustable spring preload
Spring travel at rear wheel	5.4 in (136 mm)

## Brakes

### Front wheel

Type of front brake	Hydraulically operated double disc brakes with 4-piston radial monobloc calipers and floating brake discs
Front brake pad material	Sintered metal
Front brake-disk thickness	min 0.16 in (min 4 mm), Wear limit
Free travel of brake actuation (Front wheel brake)	Approx. 0.07 in (Approx. 1.85 mm), at piston

### Rear wheel

Type of rear brake	Hydraulically operated disk brake with 2-piston floating caliper and fixed brake disk
Rear brake pad material	Sintered metal
Rear brake-disk thickness	min 0.18 in (min 4.5 mm), Wear limit
Blow-by clearance of footbrake lever	0.04 in (1 mm), Between frame and footbrake lever

## 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 <a href="http://bmw-motorrad.com">bmw-motorrad.com</a> .
Speed category of front/rear tires	W, minimum requirement: 168 mph (270 km/h)
<b>Front wheel</b>	
Front wheel design	Aluminum cast wheel
Front-wheel rim size	3.5"x17"
Front tire designation	120/70 - ZR17
Load index for front tire	At least 58
Front wheel load at unladen weight	306 lbs (139 kg)
Permissible front wheel load	max 390 lbs (max 177 kg)
Permissible front-wheel imbalance	max 0.2 oz (max 5 g)

**Rear wheel**

Rear wheel design	Aluminum cast wheel
Rear-wheel rim size	5.5" x 17"
Rear tire designation	180/55 - ZR17
Load index for rear tire	At least 73
Rear wheel load at unladen weight	302 lbs (137 kg)
Permissible rear wheel load	max 701 lbs (max 318 kg)
Permissible rear-wheel imbalance	max 1.6 oz (max 45 g)

**Tire inflation pressures**

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

## Electrical system

Electrical rating of onboard sockets	max 10 A, all onboard sockets together
Fuse box	15 A, Slot 1: instrument cluster, anti-theft alarm system (DWA), ignition lock, diagnostic socket, Topcase light 7.5 A, Slot 2: left multifunction switch, Tire Pressure Monitor (TPM), audio system
Fuse carrier	50 A, Fuse 1: Voltage regulator

### Battery

Battery design	AGM (Absorptive Glass Mat) battery.
Battery voltage	12 V
Battery capacity	16 Ah

### Spark plugs

Spark plugs, manufacturer and designation	NGK LMAR8D-J
Electrode gap of spark plug	0.03±0.01 in (0.8±0.1 mm), New 0.04 in (1.0 mm), Wear limit

**Bulbs**

Bulb for high-beam headlight	H1 / 12 V / 55 W
Bulbs for low-beam headlight	H7 / 12 V / 55 W
Bulb for parking light	W5W / 12 V / 5 W
– with Headlight Pro <sup>OE</sup>	Lighting rings, integrated into headlight
Bulb for taillight/brake light	LED
Bulbs for flashing turn indicators, front	LED
Bulbs for flashing turn indicators, rear	LED

**Alarm system**

Activation time	Approx. 30 s
Alarm duration	Approx. 26 s
Battery type	CR 123 A

## Dimensions

Motorcycle length	87.5 in (2222 mm)
Motorcycle height	55.3...60.5 in (1405...1537 mm), over windshield, at DIN unladen weight
Motorcycle width	39 in (990 mm), over mirrors
Rider's seat height	31.7...32.5 in (805...825 mm), without rider at unladen weight
– with low rider's seat <sup>OE</sup>	29.9...30.7 in (760...780 mm), without rider at unladen weight
– with high rider's seat <sup>OE</sup>	32.7...33.5 in (830...850 mm), without rider at unladen weight
Rider's inside-leg arc, heel to heel	71.3...72.8 in (1810...1850 mm), without rider at unladen weight
– with low rider's seat <sup>OE</sup>	68.5...70.1 in (1740...1780 mm), without rider at unladen weight
– with high rider's seat <sup>OE</sup>	73.8...75.4 in (1875...1915 mm), without rider at unladen weight

## Weights

Vehicle curb weight	608 lbs (276 kg), DIN curb weight, ready for operation, tank 90 % full, incl. case, without OE
Permissible gross weight	1091 lbs (495 kg)
Maximum payload	483 lbs (219 kg), without OE
Payload per case	max 22 lbs (max 10 kg)
Payload of Topcase	max 11 lbs (max 5 kg)

## Performance data

Top speed	>124 mph (>200 km/h)
Maximum speed when riding with a loaded case	max 112 mph (max 180 km/h)
Maximum speed when riding with a loaded top-case	max 112 mph (max 180 km/h)

## **Service**

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## Reporting safety defects

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

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

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

## BMW Motorrad Service

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

You will find the nearest authorized BMW Motorrad retailer to you at our website:

**bmw-motorrad.com**

### WARNING

#### **Improperly performed maintenance and repair work**

Accident hazard caused by subsequent damage

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

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

To ensure that your BMW consistently remains in optimal condition BMW Motorrad urges you to observe the recommended service intervals.

Have all maintenance and repair work confirmed in the "Service" chapter in this manual. 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 has to be performed when the vehicle has covered between 300 miles (500 km) and 750 miles (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 be-

fore 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 mls (1000 km) before the entered values.

More information on the topic of service is available at:

**[bmw-motorrad.com/service](http://bmw-motorrad.com/service)**

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





## Maintenance schedule

- 1** BMW Running-in check  
(including oil change)
- 2** BMW Service Standard  
Scope
- 3** Engine oil change with filter
- 4** Oil change in the rear  
bevel gears
- 5** Check valve clearance
- 6** Replace all spark plugs
- 7** Replace air cleaner insert
- 8** Change brake fluid in entire system
  - a annually or every 6000 mls  
(10000 km) (whichever comes first)
  - b annually or every  
12000 mls (20000 km)  
(whichever comes first)
  - c for the first time after one  
year, then every two years

## Maintenance confirmations

### BMW Service standard scope

The repair procedures belonging to the BMW Service standard package are listed below. The actual maintenance work applicable for your vehicle may differ.

- Performing the brief test using the BMW Motorrad diagnosis system
- Visual inspection of hydraulic clutch system
- Visual check of brake lines, brake hoses and connections
- Checking front brake pads and brake disks for wear
- Checking brake fluid level of front brake
- Checking rear brake pads and brake disk for wear
- Checking brake fluid level for rear brake
- Checking coolant level
- Checking side stand for ease of movement
- Checking the center stand for ease of movement
- Check the tire tread depth and tire pressure
- Checking the lighting and signal system
- Functional check for engine starting suppression
- Final inspection and check for road safety
- Set the service due date and remaining distance before next service
- Checking charging state of battery
- Confirm the BMW service in the vehicle literature

## **BMW pre-delivery check**

performed

on \_\_\_\_\_

\_\_\_\_\_  
Stamp, signature

## **BMW Running-in Check**

performed

on \_\_\_\_\_

at km \_\_\_\_\_

Next service

latest

on \_\_\_\_\_

or, if reached earlier

at km \_\_\_\_\_

\_\_\_\_\_  
Stamp, signature

**BMW Service**

performed

on \_\_\_\_\_

at km \_\_\_\_\_

Next service

latest

on \_\_\_\_\_

or, if reached earlier

at km \_\_\_\_\_

Work performed

BMW Service

Engine oil change with filter

Oil change in rear bevel gears

Checking valve clearance

Replacing all spark plugs

Replacing air cleaner element

Changing brake fluid in entire system

Yes

No

Information

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Stamp, signature

**BMW Service**

performed

on \_\_\_\_\_

at km \_\_\_\_\_

Next service

latest

on \_\_\_\_\_

or, if reached earlier

at km \_\_\_\_\_

Work performed

BMW Service

Engine oil change with filter

Oil change in rear bevel gears

Checking valve clearance

Replacing all spark plugs

Replacing air cleaner element

Changing brake fluid in entire system

Yes      No

Information

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Stamp, signature

**BMW Service**

performed

on \_\_\_\_\_

at km \_\_\_\_\_

Next service

latest

on \_\_\_\_\_

or, if reached earlier

at km \_\_\_\_\_

Work performed

BMW Service

Engine oil change with filter

Oil change in rear bevel gears

Checking valve clearance

Replacing all spark plugs

Replacing air cleaner element

Changing brake fluid in entire system

Yes

No

Information

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Stamp, signature

**BMW Service**

performed

on \_\_\_\_\_

at km \_\_\_\_\_

Next service

latest

on \_\_\_\_\_

or, if reached earlier

at km \_\_\_\_\_

Work performed

BMW Service

Engine oil change with filter

Oil change in rear bevel gears

Checking valve clearance

Replacing all spark plugs

Replacing air cleaner element

Changing brake fluid in entire system

Yes      No

Information

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Stamp, signature

**BMW Service**

performed

on \_\_\_\_\_

at km \_\_\_\_\_

Next service

latest

on \_\_\_\_\_

or, if reached earlier

at km \_\_\_\_\_

Work performed

BMW Service

Yes

No

Engine oil change with filter

Oil change in rear bevel gears

Checking valve clearance

Replacing all spark plugs

Replacing air cleaner element

Changing brake fluid in entire system

Information

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Stamp, signature

**BMW Service**

performed

on \_\_\_\_\_

at km \_\_\_\_\_

Next service

latest

on \_\_\_\_\_

or, if reached earlier

at km \_\_\_\_\_

Work performed

BMW Service

Engine oil change with filter

Oil change in rear bevel gears

Checking valve clearance

Replacing all spark plugs

Replacing air cleaner element

Changing brake fluid in entire system

Yes      No

Information

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Stamp, signature

**BMW Service**

performed

on \_\_\_\_\_

at km \_\_\_\_\_

Next service

latest

on \_\_\_\_\_

or, if reached earlier

at km \_\_\_\_\_

Work performed

BMW Service

Engine oil change with filter

Oil change in rear bevel gears

Checking valve clearance

Replacing all spark plugs

Replacing air cleaner element

Changing brake fluid in entire system

Yes

No

Information

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Stamp, signature

**BMW Service**

performed

on \_\_\_\_\_

at km \_\_\_\_\_

Next service

latest

on \_\_\_\_\_

or, if reached earlier

at km \_\_\_\_\_

Work performed

BMW Service

Engine oil change with filter

Oil change in rear bevel gears

Checking valve clearance

Replacing all spark plugs

Replacing air cleaner element

Changing brake fluid in entire system

Yes

No

Information

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Stamp, signature

**BMW Service**

performed

on \_\_\_\_\_

at km \_\_\_\_\_

Next service

latest

on \_\_\_\_\_

or, if reached earlier

at km \_\_\_\_\_

Work performed

BMW Service

Engine oil change with filter

Oil change in rear bevel gears

Checking valve clearance

Replacing all spark plugs

Replacing air cleaner element

Changing brake fluid in entire system

Yes

No

Information

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Stamp, signature

**BMW Service**

performed

on \_\_\_\_\_

at km \_\_\_\_\_

Next service

latest

on \_\_\_\_\_

or, if reached earlier

at km \_\_\_\_\_

Work performed

BMW Service

Engine oil change with filter

Oil change in rear bevel gears

Checking valve clearance

Replacing all spark plugs

Replacing air cleaner element

Changing brake fluid in entire system

Yes

No

Information

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Stamp, signature

**BMW Service**

performed

on \_\_\_\_\_

at km \_\_\_\_\_

Next service

latest

on \_\_\_\_\_

or, if reached earlier

at km \_\_\_\_\_

Work performed

BMW Service

Engine oil change with filter

Oil change in rear bevel gears

Checking valve clearance

Replacing all spark plugs

Replacing air cleaner element

Changing brake fluid in entire system

Yes

No

Information

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Stamp, signature

**BMW Service**

performed

on \_\_\_\_\_

at km \_\_\_\_\_

Next service

latest

on \_\_\_\_\_

or, if reached earlier

at km \_\_\_\_\_

Work performed

BMW Service

Engine oil change with filter

Oil change in rear bevel gears

Checking valve clearance

Replacing all spark plugs

Replacing air cleaner element

Changing brake fluid in entire system

Yes

No

Information

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Stamp, signature







## Appendix

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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. ◀

## Certifications

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### Remote Control for central locking system



#### Česky

Meta System S.p.A. tímto prohlašuje, že tento PF240009 je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 1999/5/ES.

---

#### Dansk

Undertegnede Meta System S.p.A. erklærer herved, at følgende udstyr PF240009 overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF.

---

#### Deutsch

Hiermit erklärt Meta System S.p.A., dass sich das Gerät PF240009 in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 1999/5/EG befindet.

---

#### Eesti

Käesolevaga kinnitab Meta System S.p.A. seadme PF240009 vastavust direktiivi 1999/5/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.

---

#### English

Hereby, Meta System S.p.A., declares that this PF240009 is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

---

#### Español

Por medio de la presente Meta System S.p.A. declara que el PF240009 cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE.

---

## Certifications

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### **Ελληνική**

ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ Meta System S.p.A. ΔΗΛΩΝΕΙ ΟΤΙ PF240009 ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/ΕΚ.

---

### **Français**

Par la présente Meta System S.p.A. déclare que l'appareil PF240009 est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE.

---

### **Italiano**

Con la presente Meta System S.p.A. dichiara che questo PF240009 è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.

---

### **Latviski**

Ar šo Meta System S.p.A. deklarē, ka PF240009 atbilst Direktīvas 1999/5/ΕΚ būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.

---

### **Lietuvių**

Šiuo Meta System S.p.A. deklaruoja, kad šis PF240009 atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.

---

### **Nederlands**

Hierbij verklaart Meta System S.p.A. dat het toestel PF240009 in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG.

---

### **Malti**

Hawnhekk, Meta System S.p.A., jiddikjara li dan PF240009 jikkonforma mal-ħtiġijiet essenzjali u ma provvedimenti oħrajn relevanti li hemm fid-Dirrettiva 1999/5/EC.

---

### **Magyar**

Alulírott, Meta System S.p.A. nyilatkozom, hogy a PF240009 megfelel a vonatkozó alapvető követelményeknek és az 1999/5/EC irányelv egyéb előírásainak.

---

### **Polski**

Niniejszym Meta System S.p.A. oświadcza, że PF240009 jest zgodny z zasadniczymi wymogami oraz pozostałymi stosownymi postanowieniami Dyrektywy 1999/5/EC.

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### **Português**

Meta System S.p.A. declara que este PF240009 está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.

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## Certifications

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### Slovensko

Meta System S.p.A. izjavlja, da je ta PF240009 v skladi z bistvenimi zahtevami in ostalimi relevantnimi določili direktive 1999/5/ES.

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### Slovensky

Meta System S.p.A. týmto vyhlasuje, že PF240009 spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 1999/5/ES.

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### Suomi

Meta System S.p.A. vakuuttaa täten että PF240009 tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.

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### Svenska

Härmed intygar Meta System S.p.A. att denna PF240009 står i överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.

---

### Íslenska

Hér með lýsir Meta System S.p.A. yfir því að PF240009 er í samræmi við grunnkröfur og aðrar kröfur, sem gerðar eru í tilskipun 1999/5/EC.

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### Norsk

Meta System S.p.A. erklærer herved at utstyret PF240009 er i samsvar med de grunnleggende krav og øvrige relevante krav i direktiv 1999/5/EF.

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### USA, Canada

Product name: TX BMW MR FCC ID: P3O98400 IC:4429A - TXBMWMR
---

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.

# Declaration Of Conformity

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R&TTE Declaration Of Conformity (DoC)

CE0470

We:

**Meta System S.p.A.**

with the address:

Via Majakovskij 10 b/c/d/e  
42124 Reggio Emilia –Italy

**Declare**

Under own responsibility that the product:

**TX BMW MR**

To which this declaration relates is in conformity with the essential requirements and other relevant requirements of the R&TTE Directive (1999/5/EC).

This product is in conformity with the following standards:

Health & Safety (art.3.1)

EN 60950-1

EMC (art.3.2)

ETSI EN 301 489-1/-3

Spectrum

ETSI EN 300 220 - 2

Human exposure

EN 62311

According to Directive 1999/5/CE

Reggio Emilia , 14/07/2010

Technical Director  
Lasagni Cesare



## Certifications

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### BMW Keyless Ride ID Device



#### USA, Canada

Product name: BMW Keyless Ride ID Device  
FCC ID: YGOHUF5750  
IC: 4008C-HUF5750

#### Canada:

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.

#### USA:

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.

# Declaration Of Conformity

---

We declare under our responsibility that the product

## **BMW Keyless Ride ID Device (Model: HUF5750)**

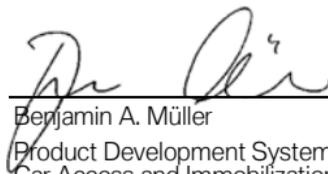
complies with the appropriate essential requirements of the article 3 of the R&TIE and the other relevant provisions, when used for its intended purpose. Applied Standards:

1. Health and safety requirements contained in article 3 (1) a)
  - EN 60950-1:2006+A11:2009+A1:2010+A12:2011; Information technology equipment- Safety
2. Protection requirements with respect to electromagnetic compatibility article 3 (1) b)
  - EN 301 489-1 (V1.9.2, 09/2011), Electromagnetic compatibility and radio spectrum matters (ERM); Electromagnetic compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements
  - EN 301 489-3 (V1.4.1, 08/2002) Electromagnetic compatibility and radio spectrum matters (ERM); Electromagnetic compatibility (EMC) standard for radio equipment and services; Part 3: Specific conditions for short range devices (SRD) operating on frequencies between 9 kHz and 40 GHz
3. Means of the efficient use of the radio frequency spectrum article 3 (2)
  - EN 300 220-1 & -2 (V2.4.1, 05/2012), electromagnetic compatibility and radio spectrum matters (ERM); Short range devices (SRD); Radio equipment to be used in the 25 MHz to 1000 MHz frequency range with power levels ranging up to 500 mW;  
Part 1: Technical characteristics and test methods.  
Part 2: Harmonized EN covering essential requirements under article 3.2 of the R&TIE directive

The product is labeled with the CE marking: **CE**

Velbert, October 15<sup>th</sup>, 2013

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Benjamin A. Müller  
Product Development Systems  
Car Access and Immobilization – Electronics  
Huf Hülbeck & Fürst GmbH & Co. KG  
Steeger Straße 17, D-42551 Velbert

## 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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Original Rider's Manual, printed in Germany.

Important data for refueling:

<b>Fuel</b>	
Recommended fuel quality	Super unleaded (max. 10 % ethanol, E10) 89 AKI (95 ROZ/RON) 89 AKI
Usable fuel quantity	Approx. 6.6 gal (Approx. 25 l)
Reserve fuel quantity	Approx. 1.1 gal (Approx. 4 l)
<b>Tire inflation pressures</b>	
Tire pressure, front	36.3 psi (2.5 bar), with tire cold
Tire pressure, rear	42.1 psi (2.9 bar), with tire cold

You can find further information on all aspects of your vehicle at:  
[bmw-motorrad.com](http://bmw-motorrad.com)

**BMW recommends** **ADVANTEC**  
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