BMW Motorrad

Rider's Manual (US Model)

R 1250 RT

Motorcycle/Retailer Data

Motorcycle Data

Model

Vehicle identification number

Color number

Initial registration

License plate

Retailer Data

Contact in Service

Ms./Mr.

Phone number

Retailer's address/phone number (company stamp)

Welcome to BMW

We are pleased that you have chosen a BMW Motorrad vehicle and welcome you to the family of BMW riders. Familiarize yourself with your new vehicle so that you can ride safely and confidently in all traffic situations.

About these Operating Instructions

Read these Operating Instructions before starting your new BMW. It contains important notes about operating the vehicle that will enable you to make full use of the technical advantages of your BMW.
You will also obtain preventive maintenance and care instructions, which are beneficial to operating and road safety and help retain the value of your vehicle as much as possible.

Documentation confirming performance of maintenance work is a precondition for generous handling of out-of-warranty claims and goodwill warranty treatment. If you should decide to sell your BMW one day, please remember to hand over these Operating Instructions as well. They are an important part of your vehicle.

Suggestions and criticism

Should you have any questions about your vehicle, your authorized BMW Motorrad retailer is always happy to provide you with advice and assistance.

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

BMW Motorrad.

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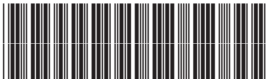


Table of Contents

General instructions

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 12. Documentation confirming performance of scheduled maintenance is a precondition for generous handling of out-of-warranty claims and goodwill warranty treatment.
When the time comes to sell your BMW, 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.

NV National-market version.

OE Optional equipment. BMW Motorrad optional equipment is already completely installed during motorcycle production.

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

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).

DWA Anti-theft alarm.

EWS Electronic immobilizer.

TPC Tire Pressure Control (TPC).

Equipment

When you ordered your BMW motorcycle, you chose various custom equipment items. These Operating Instructions describe optional equipment (OE) offered by BMW and selected optional accessories (OA). This explains why the manual may also contain descriptions of equipment which you have not ordered. Please note, too, that your motorcycle might not be exactly as illustrated in this manual on account of country-specific differences.
If your motorcycle features equipment that is not described here, you can find these features described in a separate manual.

Technical data

All dimensions, weights and performance data contained in these Operating Instructions refer to the German DIN standards and comply with their tolerance specifications.
The technical data and specifications in these Operating Instructions serve as points of reference. The vehicle-specific data may vary, for instance due to the selected optional equipment, national-market version or country-specific measuring procedures. Detailed values can be obtained from the registration documents and the signs on the vehicle or from your authorized

BMW Motorrad retailer or other qualified service partner or specialist workshop. The information on the vehicle documents always takes precedence over the information in these Operating Instructions.

Notice concerning current status

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

Additional sources of information

BMW Motorrad retailers

Your BMW Motorrad retailer is always happy to answer any of your questions.

Internet

The Operating Instructions for your motorcycle, the operating and installation instructions for optional accessories and general BMW Motorrad information related to the technology or other features are available at **bmw-motorrad.com/manuals**.

Certificates and operating permits

The certificates for the vehicle and the official operating permits for possible accessories are available at **bmw-motorrad.com/certification**.

Data memory

General information

Control units are installed in the vehicle. Control units process data received from vehicle sensors, self-generated data or data exchanged between control units, for example. Some control units are required for safe vehicle operation or provide riding assistance, such as rider assistance systems. Control units also make comfort and infotainment functions possible.
Information about the stored or exchanged data can be obtained from the vehicle manufacturer, such as in the form of a separate booklet.

Personal references

Every vehicle is marked with a unique vehicle identification number. Depending on the country, the vehicle owner can be identified using the vehicle identifi-

cation number and license plate and with the help of the relevant authorities. There are also other ways to trace data obtained from the vehicle back to the rider or vehicle owner, such as via the used ConnectedDrive Account.

Data privacy laws

In accordance with applicable data privacy laws, vehicle users have certain rights over the vehicle manufacturer or company that collects or processes personal data.
Vehicle users have the right to obtain comprehensive information without charge from the locations that store the vehicle user's personal data.
These locations may be:
– The vehicle manufacturer
– Qualified service partners
– Specialist workshops
– Service providers

Vehicle users may request information about the type of personal data that is stored, the purpose for which the data will be used and the source of the data. This information can only be obtained by a registered owner or a person with written proof authorizing use of the vehicle.
The right to information also includes information related to data transmitted to other companies or locations.
The vehicle manufacturer's website contains the appropriate privacy policy notices. The privacy policy notices contain information on the right to delete or correct data. The vehicle manufacturer also provides the manufacturer contact information and the contact information of the data security officer.
The vehicle owner can have a BMW Motorrad retailer or other qualified service partner or specialist workshop read out the data stored in the vehicle for a fee if required.
The vehicle data is read out via the socket for onboard diagnosis (OBD) required by law on the motorcycle.

Legal requirements for the disclosure of data

The vehicle manufacture is required by the law applicable in this context to provide authorities with the data stored by the manufacturer. Providing this data within the scope required is on a case-by-case basis, for instance to clarify a criminal offense.
Government agencies are authorized by the law applicable in this context to read out the data from the vehicle themselves in individual cases.

Operating data in the vehicle

Control units process data so that the vehicle can run.
Examples of this include:
- Status messages from the vehicle and its individual components, such as wheel RPM, wheel speed and deceleration
- Environmental conditions, such as temperature

The data is processed only in the vehicle itself and is usually temporary. The data is not stored beyond the period in which the vehicle is operating.
Electronic components such as control units contain components for storing technical information. This may be information about the vehicle's condition, component load, events or faults stored temporarily or permanently.
This information generally documents the condition of a component, module, system or the surrounding area; for example:
- Operating conditions of system components, such as fill levels and tire pressure
- Malfunctions and faults in key system components, such as lights and brakes
- Vehicle responses in specific riding situations, such as activation of dynamic riding systems
- Information about events causing damage to the vehicle

The data is necessary for providing control unit functions. In addition, it is used by the vehicle manufacturer to detect and eliminate malfunctions as well as to optimize vehicle functions.
The majority of this data is temporary and is processed only within the vehicle itself. Only a small amount of event-driven data is stored in the event data recorder and fault memory.
When a vehicle is serviced, such as for repairs, servicing processes, warranty cases and quality assurance measures, this technical information can be read out from the vehicle together with the vehicle identification number.
The information can be read out by a BMW Motorrad retailer or other qualified service partner or specialist workshop. The socket for onboard diagnosis (OBD) required by law on the motorcycle is used to read out the data.
The data is collected, processed and used by the respective retailer network locations. The data documents the vehicle's technical states and helps with fault finding, compliance with warranty obligations and quality improvements.

The manufacturer also has product monitoring obligations arising from product liability law. The vehicle manufacturer requires technical data from the vehicle in order to fulfill these obligations. The data from the vehicle can also be used to verify customer warranty and guarantee claims. The fault memory and event data recorder in the vehicle can be reset by a BMW Motorrad retailer or other qualified service partner or specialist workshop as part of a repair or servicing.

Data input and data transfer in the vehicle

General information

Depending on the equipment, comfort settings and individualized settings in the vehicle can be saved and changed or reset at any time.
Examples of this include:

- Windshield position settings
- Chassis and suspension adjustment settings

It is possible to introduce data into the vehicle entertainment and communication system via a smartphone, for instance.
Depending on the individual equipment, this includes:

- Multimedia data, such as music for playback
- Address book data for use in conjunction with a communication system or integrated navigation system
- Entered navigation destinations
- Data about the use of Internet services. This data can be stored locally in the vehicle or is on a device connected to the vehicle, such as a smartphone, USB stick or MP3 player. If this data is saved in the vehicle, it can be deleted at any time.

This data is transmitted to third parties only upon personal request as part of the use of online services. The data transmitted depends on the selected settings when using the services.

Integrating mobile end devices

Depending on the equipment, mobile end devices connected to the vehicle, such as smartphones, are controlled using the vehicle's operating elements. This enables audio and visual output from mobile end devices through the multimedia system. At the same time, certain information is transmitted to the mobile end device. This includes for instance position data and other general vehicle data, depending on the type of integration, and makes it possible to optimize the use of selected apps, such

as those for navigation or audio playback.
The way the data is processed further is determined by the provider of the particular app used. The range of possible settings depends on the particular app and the operating system of the mobile end device.

Services

General information

If the vehicle has a mobile phone connection, this connection makes it possible to exchange data between the vehicle and other systems. The mobile phone connection is made possible through the vehicle's transmitter and receiver or via personally integrated mobile end devices such as smartphones. Online functions, as they are called, are used over this mobile phone connection. These include online services and apps provided by the vehicle manufacturer or other providers.

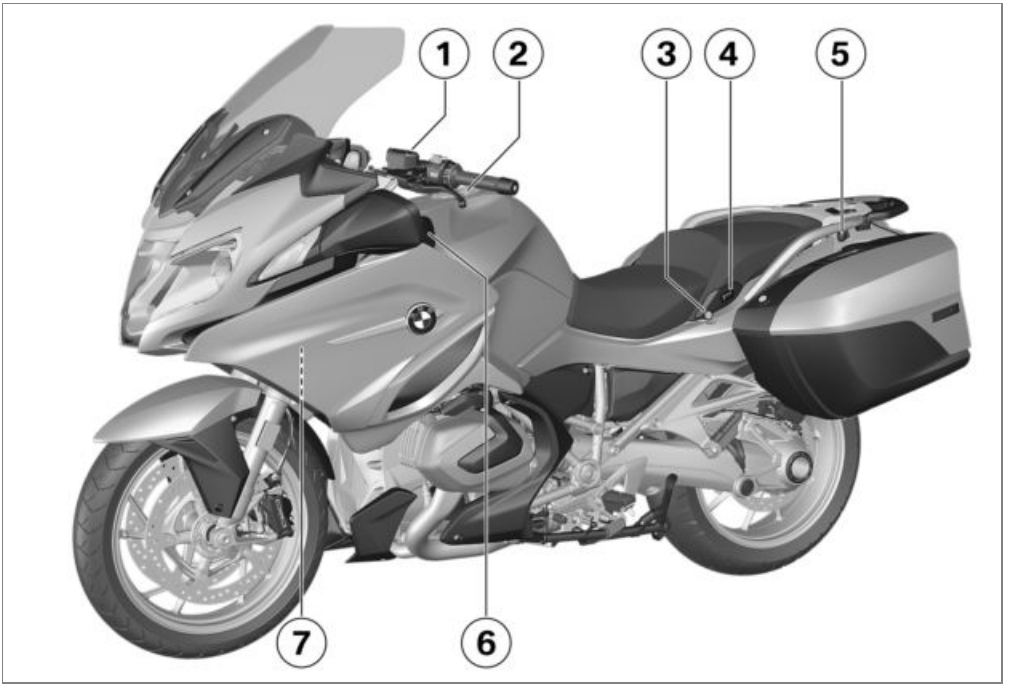
Vehicle manufacturer services

In the case of the vehicle manufacturer's online services, the particular functions are described at the appropriate location, such as in the Operating Instructions or on manufacturer's website. The relevant legal information on data privacy is also provided there. Personal data may be used in order to provide online services. The data is exchanged over a secure connection, i.e. with the vehicle manufacturer's IT systems which are intended for this purpose.
Any collection, processing and use of personal data that goes beyond the provision of services take place only as permitted by law, on the basis of a contractual agreement or as a result of consent. It is also possible to have the entire data connection activated or deactivated. This is not the case for legally prescribed functions.

Services of other providers

When using the online services of other providers, these services are subject to the responsibility and the data protection and usage conditions of the respective provider. The vehicle manufacturer has no control over the content exchanged via these services. Information about the type, scope and purpose of collecting and using personal data as part of third-party services can be obtained from the particular service provider.

Overviews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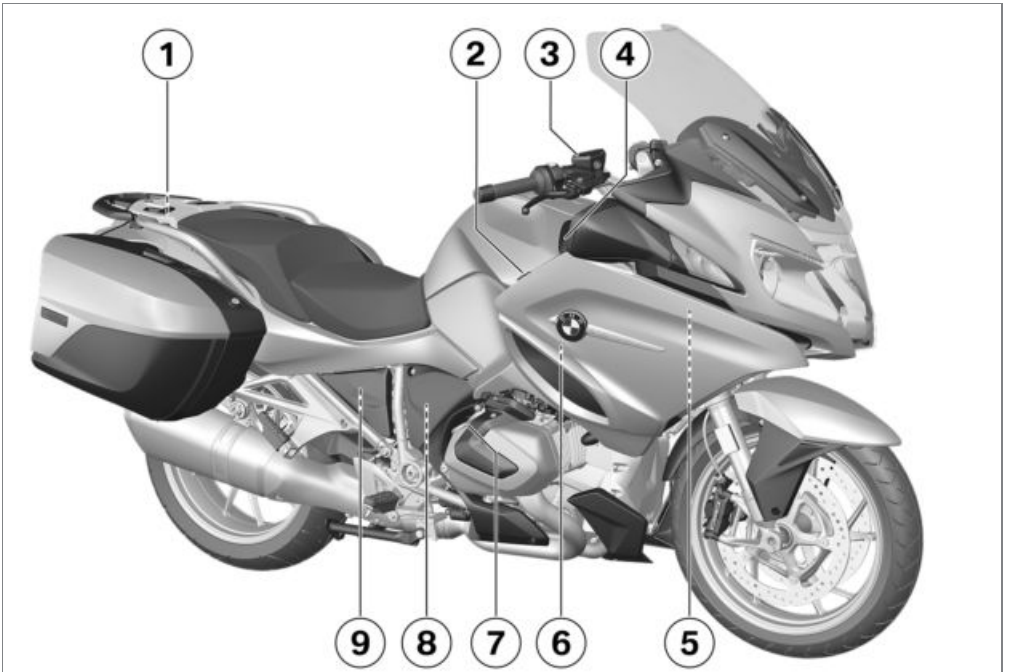
General view, left side

1 Clutch fluid reservoir (➠ 170)
2 Fuel filler opening (➠ 141)
3 Seat lock (➠ 83)
4 Passenger seat heating (➠ 82)
5 2nd power socket
6 Left storage compartment (➠ 86)
7 Load capacity table
Tire inflation pressure table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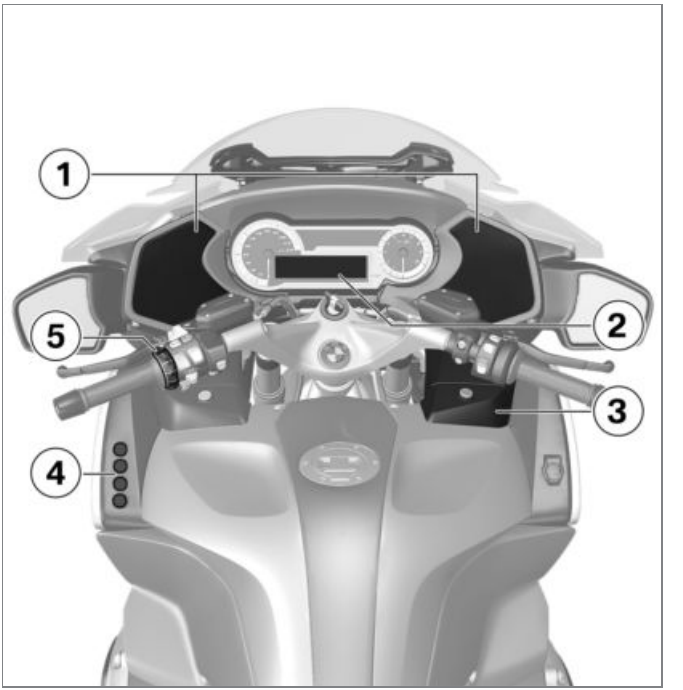
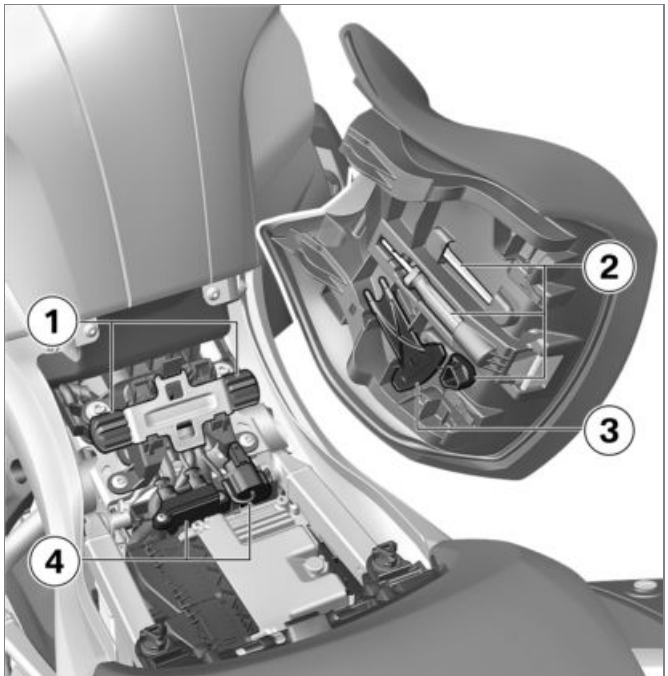
Overall view, right side

1 Operating instructions
2 Onboard power socket (➠ 196)
3 Brake fluid reservoir for front wheel brake (➠ 168)
4 Storage compartment, right (➠ 87)
5 Vehicle identification number (on the steering-head bearing)
Type plate (on the steering-head bearing)
6 Coolant level indicator (behind side panel) (➠ 170)
7 Oil filler opening (➠ 164)
8 Behind the engine spoiler:
Battery (➠ 187)
Jump-start terminal (➠ 186)
Diagnostic socket (➠ 192)
9 Brake fluid reservoir for rear wheel brake (behind the side trim panel) (➠ 169)

General view from above

1 Loudspeaker
2 Multifunction display (➠ 29)
3 Audio storage compartment with plug connector (➠ 110)
4 Audio system control unit (➠ 22)
5 Multifunction switch, left (➠ 20)



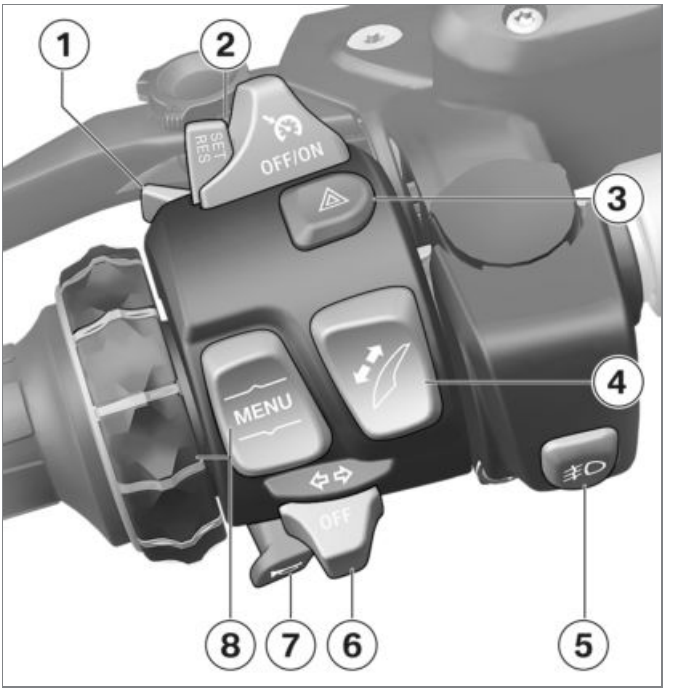


Underneath the seat

1 Adjustment of driver's seat height (➠ 84)
2 Standard tool kit (➠ 162)
3 Tool for adjusting the spring preload (➠ 126)
4 Fuses (➠ 191)

Multifunction switch, left

1 High beams and headlight flasher (➠ 60)
2 Cruise control (➠ 73)
3 Hazard warning flasher (➠ 61)
4 Windshield adjustment (➠ 120)
5 Auxiliary headlight (➠ 60)
6 Turn indicators (➠ 61)
7 Horn
8 Multi-Controller and MENU button
Multifunction display (➠ 62) (➠ 66)
ASC (➠ 69)
– with riding modes Pro OE
DTC (➠ 69)
– with Dynamic ESA OE
D-ESA (➠ 70)
– with audio system OE
Audio system (➠ 94)



Multifunction switch, right

1 – with central locking system [OE]
Locking (➠ 87).

2 Setting riding mode (➠ 72).

3 Emergency on/off switch (kill switch) (➠ 59)

4 Starting the engine (➠ 132)

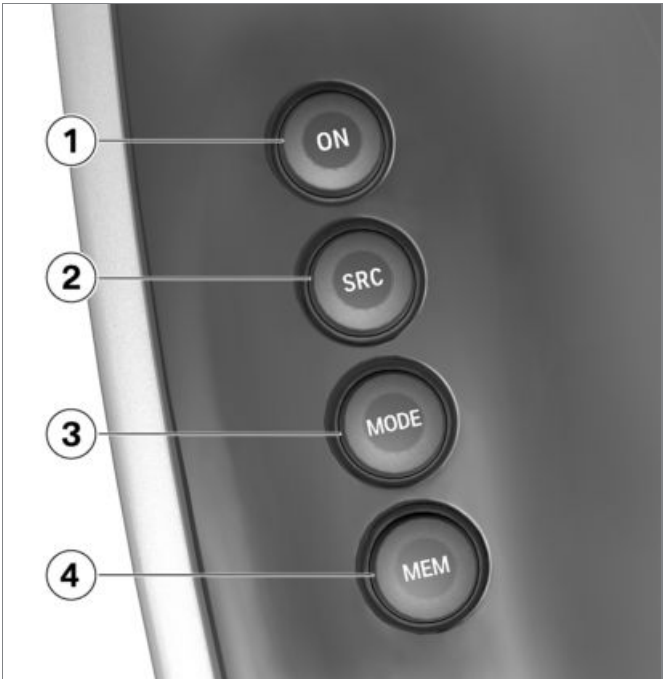
Audio system control unit

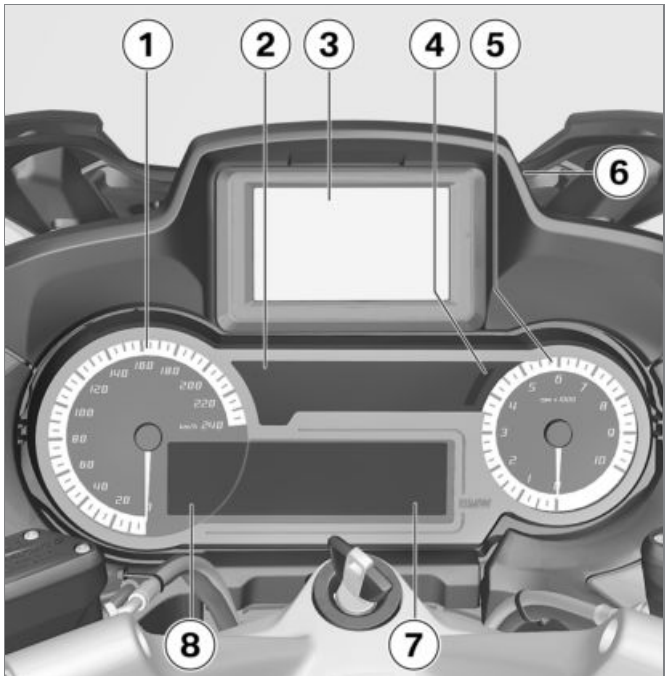
1 Switching on audio system (➠ 96).
Switching off audio system (➠ 96).
Mute (MUTE) (➠ 98).

2 Select audio source (➠ 96).

3 Select tuner mode (➠ 101) (➠ 102)
Select playback mode for external audio devices (➠ 112)
Select tuner mode for satellite radio (➠ 105)

4 Finding and saving stations automatically (➠ 100).
Manually storing stations (➠ 101).





Instrument cluster

1 Speedometer
2 Indicator and warning lights (➠ 26)
3 Navigation system (➠ 202)
4 Ambient brightness sensor (for adjusting brightness of the instrument lighting)
5 Tachometer
6 Release for navigation bay (➠ 202)
7 Multifunction display (➠ 29)
8 Trip recorder (➠ 68)

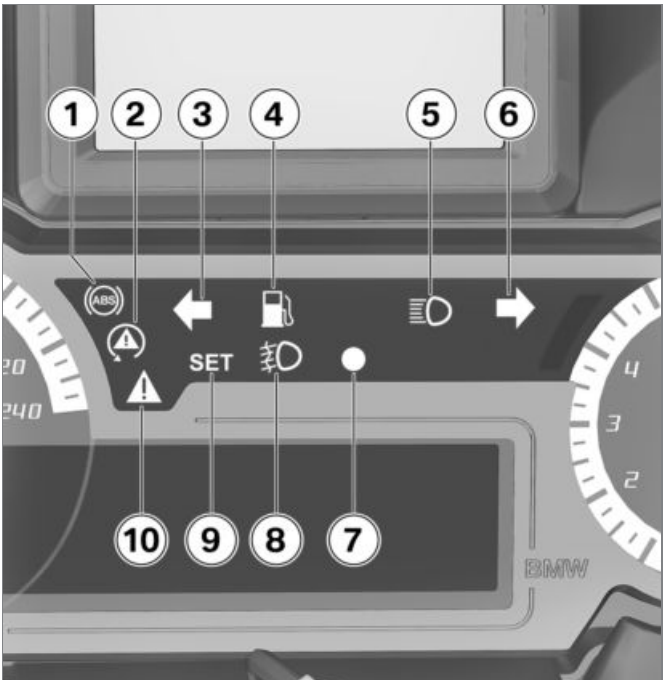
NOTICE

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

Indicator and warning lights

1 ABS (➠ 42)
2 ASC/DTC (➠ 43)
3 Turn indicator, left
4 Fuel reserve (➠ 47)
5 High beam
6 Turn indicator, right
7 Anti-theft alarm system (➠ 79)
Indicator light for radio-operated key (➠ 53)
8 Additional headlight (➠ 60)
9 Cruise control (➠ 73)
10 General warning light, in conjunction with warning symbols on display (➠ 30)



Meaning of symbols

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

Average fuel consumption since last reset (➠ 67)

Current consumption

Range with fuel quantity currently on board (➠ 47)

Average speed since last reset (➠ 67)

Ambient temperature (➠ 48)

– with tire pressure monitor (TPM)[OE]

Tire pressures (➠ 48)

Stopwatch (➠ 67)

Travel times (➠ 68)

Date (display mode depends on the time format selected) (➠ 66)

Oil level (➠ 47)

Vehicle voltage

1 Heated grips turned on

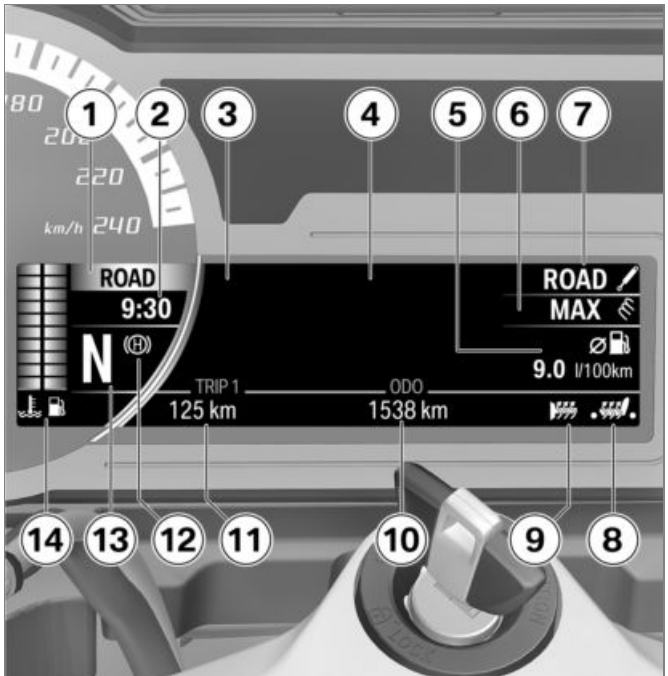
– with seat heating OE

1 Rider's seat heating turned on

2 Passenger seat heating turned on

– with Dynamic ESA OE

1 Damping mode
2 Load setting



Multifunction display

1 Riding mode (➠ 71)
2 Clock (➠ 66)
3 Warning symbols (➠ 30)
4 Menu area (➠ 62)
– with audio system[OE]
Audio system (➠ 94)
5 On-board computer (➠ 67)
– with tire pressure monitor (TPM)[OE]
Tire pressure
6 Load setting (➠ 70)
7 Damping mode (➠ 70)
8 Rider's seat heating (➠ 81)
Passenger seat heating (➠ 82)
9 Heated grips (➠ 81)
10 Odometer
11 Trip recorder (➠ 68)
12 Hill Start Control (➠ 75)
13 Gear display, "N" indicates "neutral".

14 Coolant temperature
Fuel level

Warning lights

Display

Warnings are displayed with appropriate warning lights.

Warnings for which no separate warning lamp is available are indicated by the general warning lamp **1** in conjunction with a warning symbol such as **2** in the multifunction display. The universal warning light lights up in either yellow or red depending on the urgency of the warning.
Up to four warning symbols can be shown at the same time. The universal warning light lights up for the most urgent warning.

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

Overview of warning indicators

Indicator and warning lights	Display text	Meaning
	 appears on the display	Outside temperature warning (➠ 36)
 lights up yellow	 appears on the display	EWS active (➠ 36)
 lights up yellow	 appears on the display	Radio-operated key outside reception range (➠ 36)
 lights up yellow	 appears on the display	Replace battery of radio-operated key (➠ 36)
 lights up red	Temperature display turns red.	Coolant temperature too high (➠ 37)
	 appears on the display	Engine-oil level too low (➠ 37)
 lights up yellow	 appears on the display	Engine fault (➠ 37)
 flashes yellow	 appears on the display	Severe engine fault (➠ 38)

Indicator and warning lights	Display text	Meaning
 lights up yellow	 appears in the display	Front light failure (➠ 38)
 lights up yellow	 appears in the display	Rear light failure (➠ 38)
 lights up yellow	 appears in the display	Light failure (➠ 39)
	 appears on the display	DWA battery charge level low (➠ 39)
 lights up yellow	 appears on the display	DWA battery drained (➠ 39)
	 appears on the display.	Onboard system voltage low (➠ 39)
 lights up yellow	 appears on the display.	Onboard system voltage critical (➠ 40)
 lights up red	 appears on the display.	Battery charging voltage insufficient (➠ 40)

Indicator and warning lights	Display text	Meaning
 flashes red	 + tire pressure in red	Tire pressure is outside the approved tolerance range (➠ 40)
 lights up yellow	 + "--" or "-- --" is indicated	Sensor faulty or system fault (➠ 41)
	 + "--" or "-- --" is indicated	Transmission fault (➠ 41)
 lights up yellow	 appears on the display.	Battery of the tire pressure sensor weak (➠ 42)
 flashes		ABS self-diagnosis routine not completed (➠ 42)
 lights up		ABS error (➠ 43)
 flashes rapidly.		ASC/DTC intervention (➠ 43)
 flashes slowly.		ASC/DTC self-diagnosis routine not completed (➠ 43)

Indicator and warning lights	Display text	Meaning
 lights up		ASC/DTC switched off (➠ 44)
 lights up		ASC/DTC error (➠ 44)
 lights up yellow	 appears on the display	D-ESA fault (➠ 44)
	 Green stop symbol is displayed.	Hill Start Control active (➠ 44)
	 White stop symbol is displayed.	Automatic Hill Start Control Pro active (➠ 44)
	 Yellow stop symbol is displayed.	Hill Start Control cannot be activated (➠ 45)
 flashes yellow	 Yellow stop symbol flashes briefly.	Hill Start Control is automatically deactivated (➠ 45)
	 appears on the display	Central locking locked (➠ 45)

Indicator and warning lights	Display text	Meaning
	N The gear indicator flashes.	The gear has not been programmed (➠ 45)
briefly shows yellow	SERVICE appears on the display	Service overdue (➠ 46)
lights up	Fuel-level reading turns yellow	Fuel down to reserve (➠ 47)

Outside temperature warning

 appears on the display.

EWS active

 shows yellow.

 appears on the display.

Possible cause:

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

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

Radio-operated key outside reception range

– with Keyless Ride[OE]

 shows yellow.

 appears on the display.

Possible cause:

The communication between the radio-operated key and the engine electronics is faulty.

- Check the battery in the radio-operated key.

– with Keyless Ride[OE]

- Replace battery of radio-operated key (➠ 58).
- Use spare key or a completely drained radio-operated key to continue riding.

– with Keyless Ride[OE]

- Battery of radio-operated key is drained, emergency key is not available (➠ 56).
- Radio-operated key lost, spare key available (➠ 55).
- If the warning symbol appears while riding, remain calm. You can continue riding, the engine will not turn off.
- Have any faulty radio-operated keys replaced by a BMW Motorrad retailer.

Replace battery of radio-operated key

 shows yellow.

 appears on the display.

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[OE]

- Replace battery of radio-operated key (➠ 58).

Coolant temperature too high

 shows red.

The temperature display is shown in 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 a low engine oil level. If the motorcycle is not standing vertically on a level surface, the message can also appear even when the oil level is correct. At next refueling stop:

- Checking engine oil level (➠ 164).

If the oil level is too low in the inspection glass:

- Topping up the engine oil (➠ 165).

If the oil level is correct in the inspection glass:

- Check whether the conditions for the electronic oil level check are fulfilled.

If the note appears multiple times even though the oil level is slightly below the MAX mark:

- Contact an authorized workshop, preferably an authorized BMW Motorrad retailer.

Engine fault

 shows yellow.

 appears on the display.

Possible cause:

The engine control unit has diagnosed a fault.

WARNING

Unusual handling when the engine is in emergency operation

Accident hazard

- 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 engine during emergency operation

Accident hazard

- Drive slowly and avoid rapid acceleration and passing maneuvers.
- If possible, have the vehicle picked up and the fault eliminated at a specialist workshop, 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 beams, high beams, parking lamps or turn signal faulty.

The low beams or one of the LED turn signals must be replaced.

- Please contact a specialist service facility, preferably an authorized BMW Motorrad Retailer.

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)[OE]

 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)[OE]

 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

Failure of vehicle systems

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)[OE]

 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 pressure, check the information on temperature compensation and tire pressure adjustment in the Technology in detail chapter.◀

- 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)[OE]

 shows yellow.

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

Possible cause:

Wheels without TPC/TPC sensors are mounted.

- Retrofit wheel set with TPC/TPC sensors.

Possible cause:

1 or 2 TPC 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)[OE]

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

Possible cause:

The motorcycle has not reached the minimum speed (➠ 156).

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

- Watch the 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 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 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) OE

 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 partial integral brake and the Dynamic Brake Control function have failed. The ABS function is not available.

- You may continue to ride provided you take into account that the ABS function is not active. You should also observe the additional information on situations that can lead to an ABS fault (➠ 150).
- Have the malfunction corrected as soon as possible at an authorized specialist workshop, preferably an authorized BMW Motorrad retailer.

ASC/DTC intervention

 flashes rapidly.

ASC/DTC has detected instability at the rear wheel and responded by reducing the torque. The indicator and warning light flashes longer than the ASC/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/DTC self-diagnosis routine not completed

 flashes slowly.

Possible cause:

 ASC/DTC self-diagnosis routine not completed
ASC/DTC 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 sensors: min 3 mph (min 5 km/h))

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

ASC/DTC switched off

 lights up.

Possible cause:

The ASC/DTC system was deactivated by the rider.

- Switching on ASC/DTC.

ASC/DTC error

 lights up.

Possible cause:

The ASC/DTC control unit has detected a fault. The ASC/DTC function is not available.

- It remains possible to continue riding. It must be noted that the ASC/DTC function is not available. Observe additional information on situations that can lead to a ASC/DTC fault (➠ 152).
- Have the malfunction corrected as soon as possible at an authorized specialist workshop, 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. Damping action and/or the spring adjustment may be the cause. In the Auto loading mode, the cause may be a fault in the function of the riding position compensation. In this state, the motorcycle is probably heavily damped and is uncomfortable to drive, particularly on poor roadways. Alternatively, the spring setting may be set incorrectly.

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

Hill Start Control active

 Green stop symbol is displayed.

Possible cause:

Hill Start Control (➠ 159) was activated automatically or was activated by the rider.

- Using Hill Start Control (➠ 75).

– with riding modes Pro[OE]

- Turning automatic Hill Start Control Pro on and off (➠ 77).

Automatic Hill Start Control Pro active

– with riding modes Pro[OE]

 White stop symbol is displayed.

Possible cause:

The automatic Hill Start Control Pro is active. If the rider stops on an incline > 5%, the vehicle is automatically held in place by the brakes.

- Turn off automatic Hill Start Control Pro.
- Turning automatic Hill Start Control Pro on and off (➠ 77).

Hill Start Control cannot be activated


Yellow stop symbol is displayed.

Possible cause:

The Hill Start Control can not be activated.

- Fold in side stand.
- » Hill Start Control only functions when the side stand is folded in.
- Start engine.
- » Hill Start Control only functions with the engine running.

Hill Start Control is automatically deactivated


flashes yellow.


Yellow stop symbol flashes briefly.

Possible cause:

Hill Start Control was deactivated automatically.

- Side stand was folded out.
- » Hill Start Control is deactivated when the side stand is folded out.
- Engine was stopped.
- » Hill Start Control is deactivated when the engine is stopped.
- Using Hill Start Control (➠ 75).

Central locking locked

– with central locking system OE


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 OE

N The gear indicator flashes. The shift assistant Pro has no function.

Possible cause:

– with Gearshift Assistant Pro OE

The gear sensor has not been fully programmed.

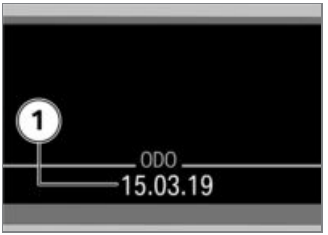
- Engage idle N and let the engine run for at least 10 seconds while standing to program the idle gear.
- Shift through all gears by operating the clutch and ride in each engaged gear for at least 10 seconds.
- » The gear indicator stops flashing after the gear sensor has been successfully programmed.
- – After the gear sensor is fully programmed, the shift assistant Pro functions as described (➠ 157).

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

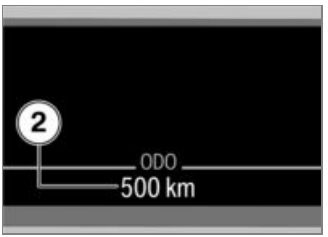
Service display

If a service is due, the service symbol and the service due date in place of the odometer are shown for a short time after the Pre-Ride-Check.

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** is displayed.



If the motorcycle covers high annual mileages then shorter service intervals may be required. If the countdown distance to the early service is less than 621 miles (1000 km), countdown distance **2** is displayed.

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 situation can occur if the battery was disconnected.◀

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 spe-

cialist 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 (➠ 141).

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.◀

Electronic oil-level check

 The electronic oil-level check provides information on the oil level in the engine.

The following conditions must be satisfied in order to use the electronic oil-level check:

– Engine at operating temperature.

– Engine idling for at least ten seconds.
– No brake applied.
– Side stand retracted.
– The motorcycle is standing upright.

The readings mean:

OK: oil level correct.

CHECK!: check the oil level during the next refueling stop.

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

Ambient temperature

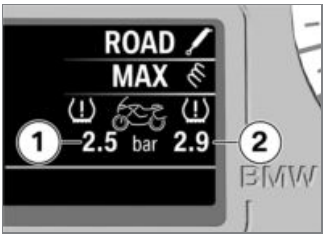
Engine heat can lead to spurious readings of ambient temperature when the motorcycle is stationary. When the effects of engine heat on the monitored temperature become excessive the display responds by temporarily reverting to "--" as the display reading.

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)[OE]



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

In the event of a critical tire pressure, the corresponding display is shown in red.

 In addition, the tire warning symbol is displayed.

 The general warning light flashes red.

Further information on BMW Motorrad TPC can be found starting from page (➠ 156).

Operation

Ignition steering lock

Ignition keys

You are provided with 2 ignition keys.

Should you lose your keys, refer to the information regarding the electronic immobilizer (EWS) (➠ 58).

Single key locking system

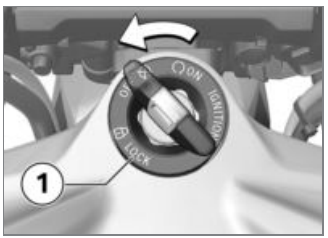
– Ignition steering lock
– Pannier lock
– Stow compartment lock
– Fuel filler cap
– Seat lock
– Storage compartment

– with topcase OA
– Topcase

– with audio system OE
– Audio stow compartment

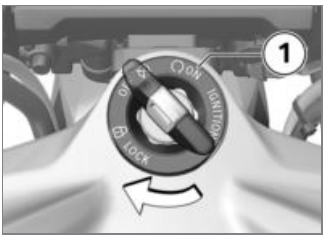
Securing steering lock

• Turn handlebars to left.



• Turn the ignition key to position **1** while moving the handlebars somewhat.
» Ignition, lights and all electrical circuits switched off.
» Steering lock is locked.
» The ignition key can now be removed.

Switching on ignition



• Insert the ignition key into the ignition steering lock. Turn the key to position **1**.
» Parking lights and all function circuits are switched on.
» Pre-Ride-Check is carried out. (➠ 133)
» ABS self-diagnosis is performed. (➠ 134)
» ASC self-diagnosis in progress. (➠ 135)
– with riding modes Pro OE
» DTC self-diagnosis is performed. (➠ 135)◁

Welcome light

- Switch on the ignition.

» The parking lamp briefly lights up.

– with additional headlight OE

» The supplementary LED headlights briefly light up.◁

Switching off ignition

- Turn ignition 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 memory entry.

» Steering lock is not locked.

» Electrically powered accessories remain operational for a limited period of time.

» Battery can be recharged using the socket.

» The ignition key can now be removed.

– with additional headlight OE

- The auxiliary LED headlights go off shortly after the ignition is switched off.◁

Ignition with Keyless Ride

– with Keyless Ride OE

Ignition 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 spare key is detected, it goes out.

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

You are provided with one radio-operated key and one spare key. Should you lose your keys, refer to the information regarding the electronic immobilizer (EWS) (➠ 58).

The ignition, fuel cap and anti-theft alarm system are activated 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

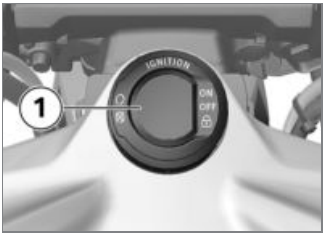
locking system cannot be locked/ unlocked.
When the range is exceeded, the ignition is switched off after approx. 1.5 minutes, the central locking system is **not** locked.
It is advisable to carry the radio-operated key directly on your person (e.g. in a jacket pocket) and to also carry the spare key 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

Key remote 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 additional headlight OE
» LED additional headlights are switched on.◁
» Pre-Ride-Check is carried out. (➠ 133)
» ABS self-diagnosis is performed. (➠ 134)
» ASC self-diagnosis in progress. (➠ 135)

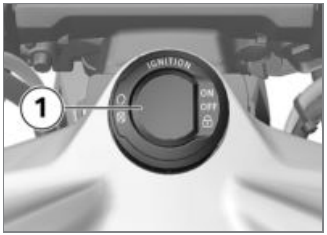
– with riding modes Pro OE
» DTC self-diagnosis is performed. (➠ 135)◁

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 is carried out. (➠ 133)
» ABS self-diagnosis is performed. (➠ 134)
» ASC self-diagnosis in progress. (➠ 135)
– with riding modes Pro OE
» DTC self-diagnosis is performed. (➠ 135)◁

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.

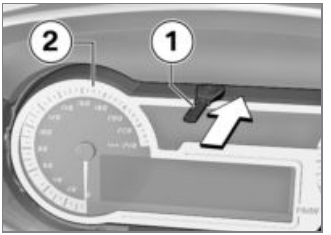
Version 2:
- Turn handlebars to left.
- Press and hold button **1**.
» Light is switched off.
» Steering lock is locked.

Radio-operated key lost, emergency key available

Requirement

The spare key is available.

- Park motorcycle. Ensure that the ground is firm and level.
- If 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 spare key.



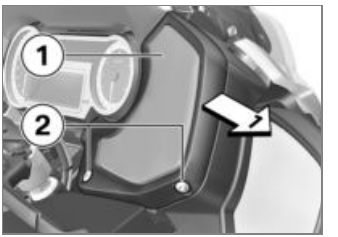
- Insert spare key **1** into gap **centrally** above the instrument cluster **2** (**arrow**).

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 (➠ 132).

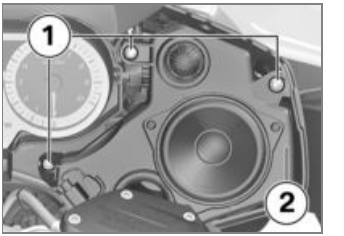
Battery of radio-operated key is drained, emergency key is not available

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

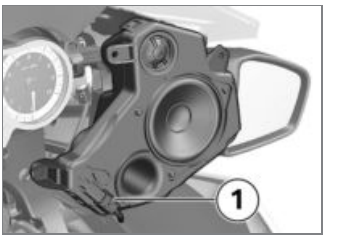


- Remove screws **2**.
- Remove speaker cover **1** sideways to right.

– with audio system OE



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



- Disconnect the plug **1**.◁

- Fold out key bit.
- Hold radio-operated key by key bit **1**.

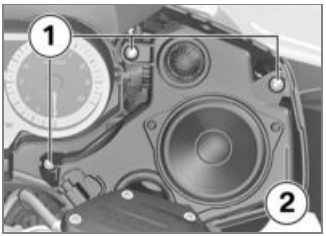
- Hold radio-operated key **behind** instrument cluster **1** (**arrow**) at the level of the warning and indicator lights.

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

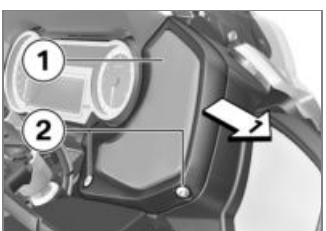
» Pre-Ride Check in progress.
– Key has been detected.
– Engine can be started.
- Starting the engine (➠ 132).

– with audio system[OE]

- Connect electrical connector **1**.



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



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

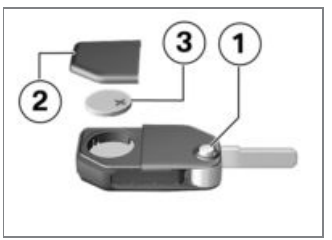
Replace battery of radio-operated key

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.

 appears on the display.



- 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.

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

An additional ignition key attached to the same ring as the ignition key used to start the engine could "irritate" the electron-

ics, in which case the enabling signal for a start is not issued. The warning is displayed in the multifunction display with the key symbol.
Always store ignition keys separately from the ignition key used for starting the vehicle.◀

If you lose a vehicle key, you can have it disabled by your authorized BMW Motorrad retailer. When having a key disabled you should also bring all of the motorcycle's remaining keys with you. The engine can no longer be started using a disabled key; however, a disabled key can be enabled again.
Ignition keys are available only through an authorized BMW Motorrad retailer. The keys are part of an integrated security system, so the retailer is under an obligation to check the legitimacy of all applications for replacement/extra keys.

Emergency on/off switch (kill switch)

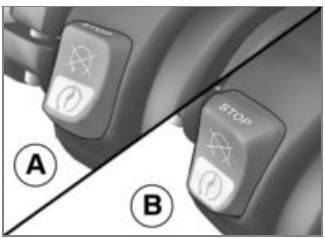
1 Emergency on/off switch (kill switch)

WARNING

Operation of the emergency ON/OFF switch when riding
Danger of falling due to blocking of rear wheel

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

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



A Engine 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

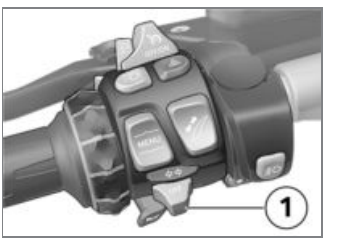
- Press switch **1** toward front to switch on high beams.
- Pull switch **1** rearward to actuate headlight flasher.

NOTICE

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

Parking light

- Switch off ignition.



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

Operating LED auxiliary headlight

– with additional headlight OE

NOTICE

The auxiliary headlights are approved for use as fog lights and may only be used in poor weather conditions. Comply with the country-specific road traffic regulations.◀

- Press button **1** to switch on the LED auxiliary headlight.

The telltale light shows.

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

- Press button **1** again to switch off the LED auxiliary headlight.

Hazard warning flasher

Operating hazard warning flasher

- Switching on ignition (➠ 52).

NOTICE

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

- Press button **1** to switch on the hazard warning flasher system.

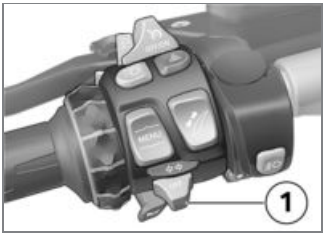
» Ignition can be switched off.

- To switch off the hazard warning flasher, switch on the ignition, as required, and press button **1** once again.

Turn indicators

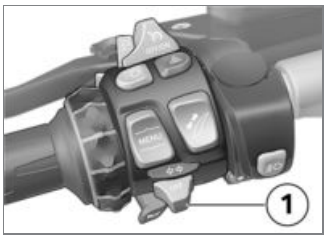
Operating turn signals

- Switch on the ignition.



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

Comfort turn signals



When button **1** is pressed to the right or left, the turn signal automatically turns off under the following conditions:

- Speed is under 18 mph (30 km/h): after a distance covered of 165 ft (50 m).
- Speed is between 18 mph and 60 mph (30 km/h and 100 km/h): after covering a particular distance depending on the speed or when accelerating.
- Speed is above 60 mph (100 km/h): after turn signal flashes five times.

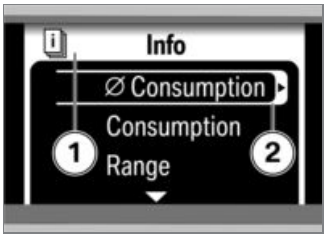
When button **1** is pressed and held slightly longer to the right or left, the turn signals will only turn off automatically after covering the distance depending on the speed.

Multifunction display

Selecting a 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.

Except for the `Audio` area, the `Settings` menu can only be called up when the vehicle is at a standstill.



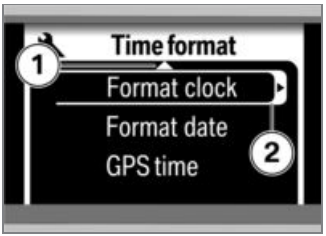
The selected menu is displayed in position **1**. The selected submenu **2** is marked by a border.

NOTICE

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

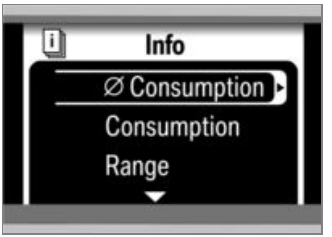
Selecting a menu item

Move the mouse pointer within the menu using the Multi-Controller **1**.

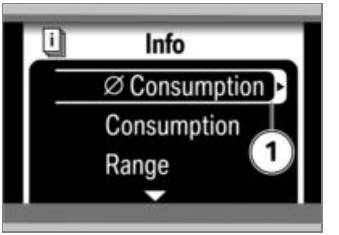


An arrow **1** on the upper or lower edge of the display indicates that, by turning the Multi-Controller in the corresponding direction, you can access additional menu items. If the arrow **2** is shown on the mouse pointer, you can call up a submenu by pressing the Multi-Controller to the right (different meaning for average values and list selection, see (➠ 64)).

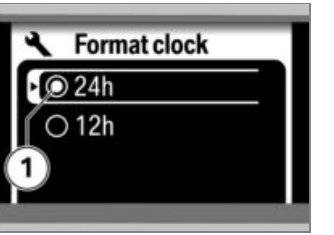
Making a setting



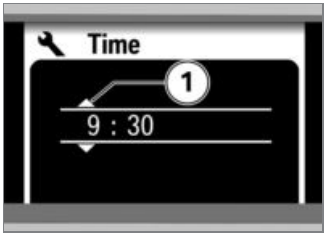
Direct selection
If the cursor is placed on a menu item that does not require an additional setting, this selection will become active immediately.



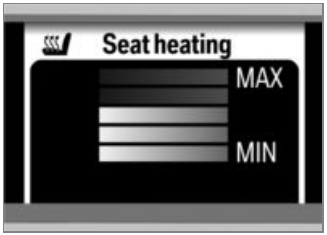
Resetting settings
You can reset average values marked with an arrow **1** by long-pressing the Multi-Controller to the right.



Selecting from a list
A circle **1** beside each selectable item means that the items are part of a selection list. The current selection is indicated by a dot within the circle.
To change the selection, select a list item using the cursor and then press the Multi-Controller to the right to activate or deactivate.

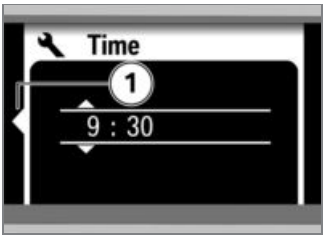


Setting numerical values
If there are individual or multiple numerical values between the arrows **1**, you can increase the values by turning the Multi-Controller up or reduce the values by turning it down. Switch between the values by pressing the Multi-Controller to the right or left.

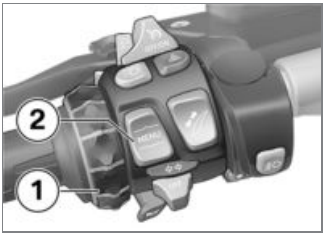


Setting relative values
Settings between two limit values are made using a bar display. The value to be set can be increased or decreased by turning the Multi-Controller upwards or downwards respectively.

Exiting the menu



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

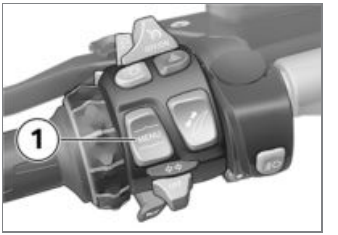


Pressing the Multi-Controller **1** to the left returns you to the next higher menu; pressing the MENU button **2** returns you to the main menu.

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

Selecting a favorite menu

- Select the desired main menu.



- 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 the button **1**.

Adapting mode of presentation

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

The following settings are available:

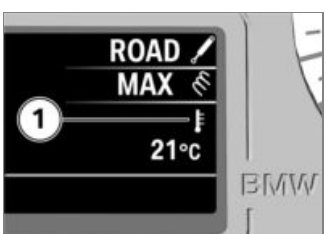
- Language: display language (German, English, Spanish, Italian, French, Dutch, Portuguese)
- Time format - Format clock: clock in 12-hour format (12 h) or in 24-hour format (24 h)
- Time format - Format date: date in DDMMYYYY format (dd . mm . yy) or in month/day/year format (mm / dd / yy)
- Time format - GPS time: accept GPS time and GPS date from installed navigation system (On), (Off)
- Brightness: brightness of the display and the instruments
- Start logo: display of the start logo after the ignition is switched on (On), (Off)
- Initial state: restore delivery status (when Reset! 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.

On-board computer

Selecting display readings

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



The following information may be shown in area **1**:

– ØConsumption: Average fuel consumption
– Consumption: Current fuel consumption
– Range: Range with remaining fuel quantity
– 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 display

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 the stopwatch

- Call up the Info menu and then select the Stopwatch menu item.

- With the stopwatch stopped, push the Multi-Controller **1** to the right to start the stopwatch.

» The time measurement will even continue to run if a different display is selected or the ignition is turned off.

- 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 then select the `Travel times` menu item.

- Push the Multi-Controller **1** to the right and hold it in this position to reset the travel time.

» The time measurement will also continue to run if a different display is selected or the ignition is turned off.

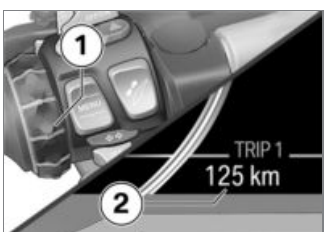
Time during which the motorcycle was on the move since the last reset.

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

Trip recorder

Selecting the trip recorder

- Switch on the ignition.



- Go to the `Trip` menu using the Multi-Controller **1**.

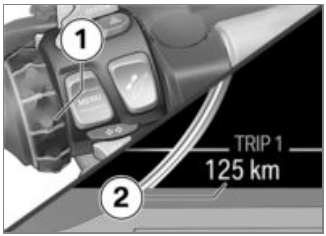
Then select the desired trip recorder **2**.

The following odometers can be displayed:

– Trip recorder 1 `(Trip 1)`
– Trip recorder 2 `(Trip 2)`
– The automatic trip recorder `(Trip Auto.)` resets automatically eight hours after the ignition is turned off.

Resetting the trip recorder

- Switch on the ignition.
- Select the desired trip recorder.



- Press and hold the Multi-Controller **1** to the right until the trip recorder **2** is reset.

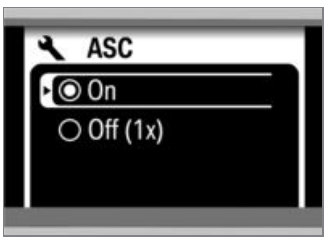
Automatic Stability Control (ASC)

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 (1x)` 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)

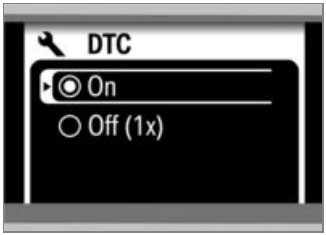
– with riding modes Pro[OE]

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 (1x)` 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 OE

Dynamic ESA adjustment options

The Dynamic ESA electronic chassis setting can automatically adapt your motorcycle to the load. If the spring setting is set to `AUTO`, the driver does not have to worry about adjusting the load.
More information about Dynamic ESA can be found in the "Technology in detail" chapter (➠ 153).

Available damping modes

– For comfortable riding on roads: ROAD
– For dynamic riding on roads: DYNA

Available load settings

– Fixed minimum spring setting: MIN
– Active riding position compensation with automatic spring setting: AUTO
– Fixed maximum spring setting: MAX

NOTICE

BMW Motorrad recommends the `Auto` chassis and suspension adjustment.◀

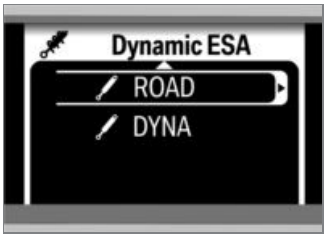
Setting suspension compliance

- Start engine.

NOTICE

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

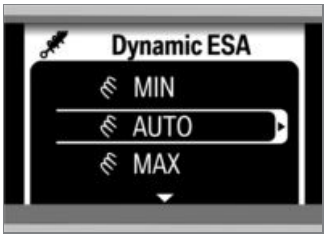
- Call up the Dynamic ESA menu.



The range of adjustment for damping is shown.
– ROAD: damping for comfortable riding on roads.
– DYNA: damping for dynamic riding on roads.
- 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 range of adjustment for the load is shown.
– MIN: minimum spring setting
– AUTO: automatic spring setting
– MAX: maximum spring setting
- 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 OE
– Brisk riding on dry roads.

For each of these three scenarios, the optimum balance between engine characteristics and ASC/DTC control is provided.

– with Dynamic ESA OE
The chassis and suspension adjustment also adapts to the selected scenarios.

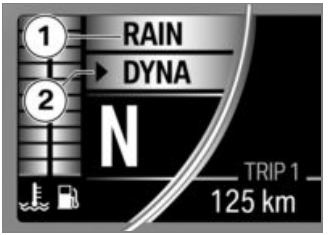
Setting riding mode

• Switching on ignition (➠ 52).

• Press button **1**.

NOTICE

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



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

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

The following riding modes can be selected:

– RAIN: when riding on wet roads.
– ROAD: when riding on dry roads.

– with riding modes Pro OE
» The following riding mode can also be selected:
– DYNA: For dynamic riding on dry roads.◁
» When the motorcycle is stationary, the selected riding mode is activated after approx. 2 seconds.
» The new riding mode is activated during operation under the following conditions:
– Throttle grip is in idle position.
– Brake is not engaged.
– Cruise control is not active.
» Following activation of the new riding mode, the symbols for coolant temperature and fuel level are displayed again.

» The riding mode selected along with the associated ASC/DTC and Dynamic ESA settings are also retained once the ignition has been switched off.

Cruise-control system

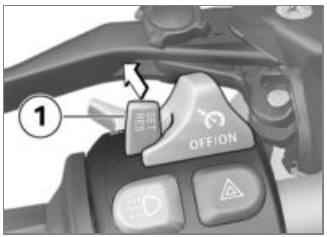
– with cruise control OE

Switch on cruise-control system

- Push switch **1** to right.

» Button **2** is unlocked.

Setting road speed



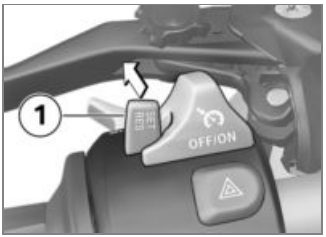
- Briefly press button **1** forward.

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.

Accelerating



- Short-press button **1** forward.

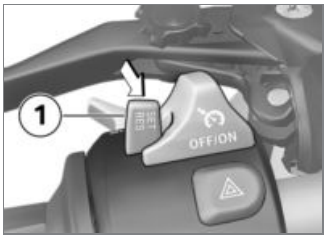
» Speed is increased by 1 mph (1.6 km/h) each time the button is pressed.

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

» The motorcycle accelerates with infinite variability (no steps).

» If button **1** is no longer pressed, the speed reached is maintained and saved.

Decreasing speed



- Briefly press button **1** backward.

» Speed is reduced by 1 mph (1.6 km/h) each time the button is pressed.

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

» The motorcycle decelerates with infinite variability (no steps).

» If button **1** is no longer pressed, the speed reached is maintained and saved.

Deactivating cruise-control system

- Actuate the brakes, coupling or throttle grip (ease the throttle beyond the default setting) to deactivate the cruise control.

NOTICE

When downshifting using the Pro Gearshift Assistant, the cruise control system is automatically deactivated for safety reasons.◀

NOTICE

With ASC and DTC interventions, the cruise-control system is automatically deactivated for safety reasons.◀

» Cruise-control system indicator light goes out.

Resuming former cruising speed

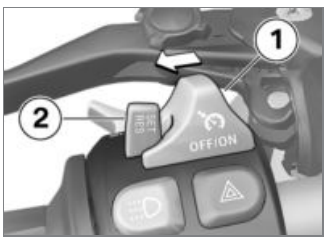
- Briefly push button **1** back to return to the speed saved beforehand.

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

Using Hill Start Control

Requirement

Vehicle is standing still and engine is running.

ATTENTION

Drive-off assistant failure

Accident hazard

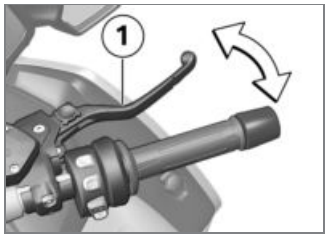
- Manually brake to secure the vehicle.◀

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 handbrake lever **1** or footbrake lever firmly and then release again.

Green stop symbol is displayed.

» Hill Start Control is activated.

- To switch off Hill Start Control, activate the brake lever **1** or the footbrake lever again.

Stop symbol disappears.

- Alternatively, ride off in 1st or 2nd gear.

NOTICE

Hill Start Control is deactivated automatically when driving off.◀

The stop symbol disappears after the brake has been released completely.

» Hill Start Control is deactivated.

- More information about Hill Start Control can be found in the section "Technology in detail".

» Hill Start Control function (➠ 159)

Using the Hill Start Control Pro

– with riding modes Pro OE

Requirement

Vehicle is standing still and engine is running.

Requirement

Automatic Hill Start Control Pro switched on.

ATTENTION

Drive-off assistant failure

Accident hazard

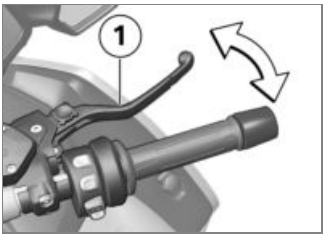
- Manually brake to secure the vehicle.◀

NOTICE

Hill Start Control Pro is only a comfort system to make starting on hills easier and should therefore not be confused with a parking brake.◀

NOTICE

Hill Start Control Pro drive-off assistant should not be used for gradients of more than 40%.◀



- Apply handbrake lever **1** or footbrake lever firmly and then release again.
- Alternatively, apply the brake for about one second after the vehicle has come to a standstill, with a gradient of at least 5%.

Green stop symbol is displayed.

» Hill Start Control Pro is now activated.

- To switch off Hill Start Control Pro, activate the handbrake lever **1** or the footbrake lever again.

NOTICE

If Hill Start Control Pro was deactivated using the brake lever, automatic Hill Start Control is deactivated for the next 4 m.◀

White stop symbol is displayed.

- Alternatively, ride off in 1st or 2nd gear.

NOTICE

Hill Start Control Pro is deactivated automatically when driving off.◀

White stop symbol is displayed.

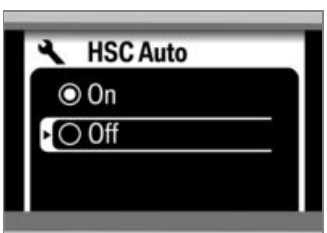
» Hill Start Control Pro is now deactivated.
- More information about Hill Start Control Pro can be found in chapter "Technology in detail":

» Hill Start Control function (➠ 159)

Turning automatic Hill Start Control Pro on and off

– with riding modes Pro[OE]

- Switch on the ignition.
- Call up the `Settings` menu and then select the `HSC AUTO` menu item.



- To turn on automatic Hill Start Control Pro, select `On`.

White stop symbol is displayed.

» When applying the brake for approximately one second after the vehicle has come to a standstill and on a slope with at least a 5% gradient, Hill Start Control Pro is activated automatically.
- To turn off automatic Hill Start Control Pro, select `Off`.
» The selected setting is retained even after the ignition is turned off.

Anti-theft alarm system (DWA)

Activation

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

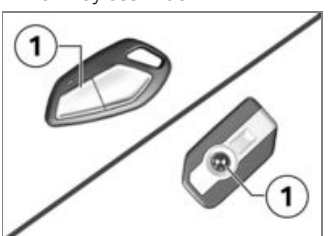
- Switching on ignition (➠ 52).
- DWA Adapting (➠ 80).
- Turn off ignition.

» 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 OE

or

– with Keyless Ride OE



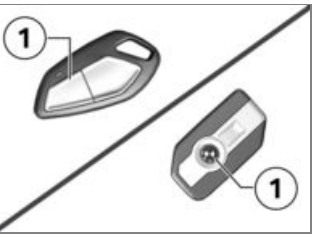
• Turn off ignition.

• 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)

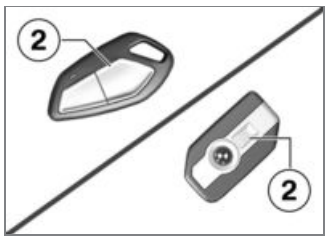
If the DWA battery is discharged all functions remain operational; the only difference is that the alarm cannot be set off if the system is disconnected from the motorcycle battery.

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 OE
or
– with Keyless Ride OE



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) OE

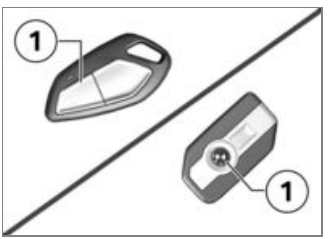
- Emergency on/off switch (kill switch) in normal operating position.
- Switch on the ignition.

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

– with central locking system OE

or

– with Keyless Ride OE



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

NOTICE

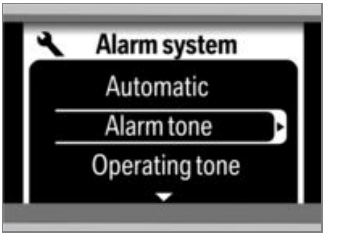
If the alarm function is deactivated using the radio-operated key and the ignition is not then switched on, it will reactivate automatically after 30 seconds if "activation after ignition off" is programmed.◀

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

DWA Adapting

– with anti-theft alarm system (DWA) OE

• Call up the `Settings` menu and select `Vehicle` - `Alarm system`.



The following settings are available:

– `Automatic` - `On`: Anti-theft alarm system is activated automatically after the ignition is turned off.
– `Automatic` - `Off`: Anti-theft alarm system must be activated with the remote key after the ignition is turned off.
– `Alarm tone`: Type of alarm tone.
– `Operating tone` - `On`: Turn indicators flash and one tone sounds as confirmation when the anti-theft alarm system is turned on or off.
– `Operating tone` - `Off`: Only the turn indicators flash as confirmation when the anti-theft alarm system is turned on or off.

• Make the desired adjustment using the Multi-Controller.

Heating

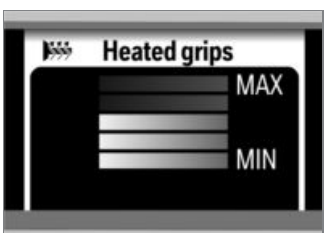
Operating heated grips

- Start engine.

NOTICE

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

- Call up the `Heated grips` menu.



The grips have five-level heating. The fifth level is used for fast heating of the grips; the switch should then be switched back to one of the lower levels.

- Select the desired heating level.

When the grip heating is switched on, the symbol **1** is displayed.

Rider's seat heater

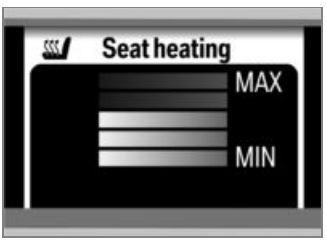
– with seat heating OE

- 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-level heating. The fifth level is used for fast heating of the seat; the switch should then be switched back to one of the lower levels.

- Select the desired heating level.

When the rider's seat heating is switched on, the symbol **1** is displayed.

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.

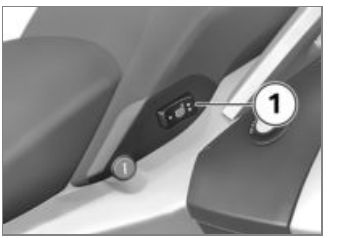
Pillion passenger seat heater

– with seat heating OE

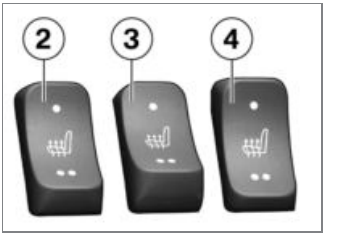
• Start engine.

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.

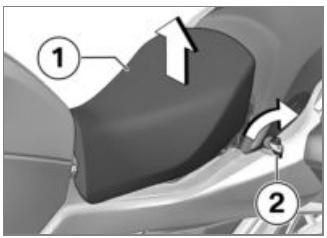
– **2** Switch in middle position: Heating off.
– **3** Switch in one-dot position: 50 % heating output.
– **4** Switch in two-dot position: 100 % heating output.

When the passenger seat heating is switched on, the symbol **1** is displayed.

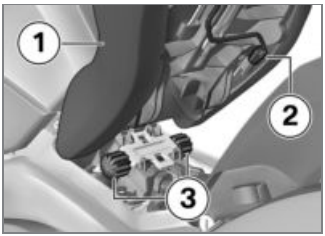
If this warning symbol appears it tells you that the onboard system voltage is low. If applicable, the seat heating might have been temporarily switched off.

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.

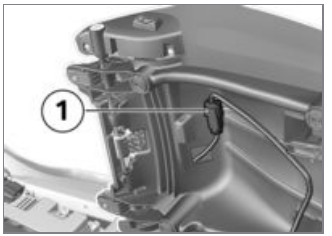
– with seat heating OE

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

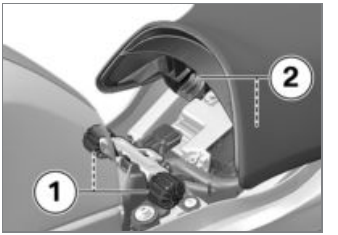
- Remove front seat and place on a clean and dry surface with upholstered side facing down.

Installing driver's seat

– with seat heating OE



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

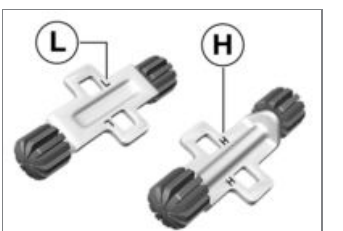


- Locate front seat lugs **2** in the rubber buffers **1** on the left and right.
- Lower the rear of the rider`s seat and engage the seat in the latching mechanism.

Adjusting front-seat height

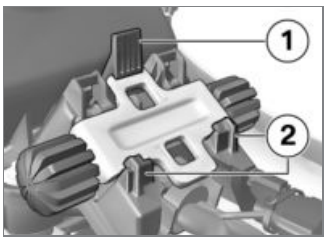
- Removing rider`s seat (➠ 83).

- 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.

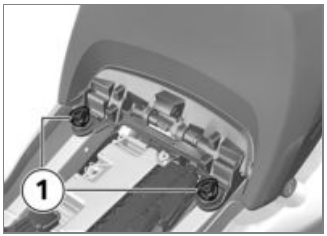


- Insert the adjuster plate into mounts **2** in the desired position and then press it into the catch **1**.
- Installing driver's seat (➠ 84).

Passenger seat

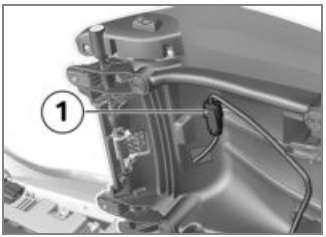
Remove passenger seat

- Turn off ignition.
- Removing rider`s seat (➠ 83).



- Remove screws **1**.
- Pull passenger seat forwards slightly and lift.

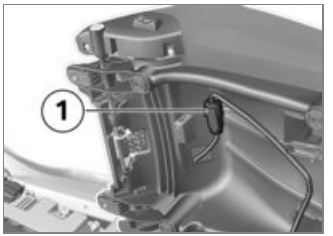
– with seat heating[OE]



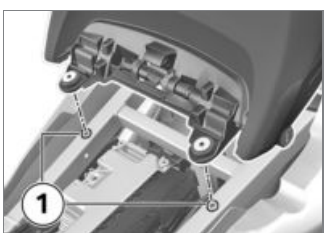
- Disconnect seat heating plug connection **1** and remove passenger seat.◁
- Lay seat on a clean surface with the upholstered side down.

Install passenger seat

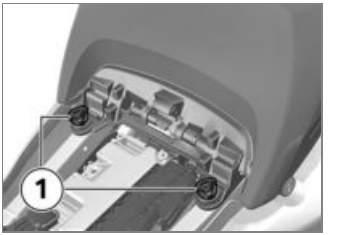
– with seat heating[OE]



- Connect seat heating plug connection **1**.◁



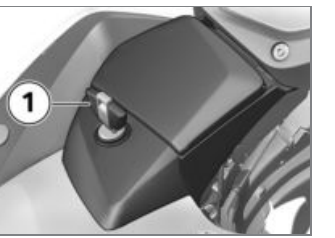
- Place passenger seat on the stands **1**.



- 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

- 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 OE

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

NOTICE

Only motorcycles without Keyless 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 OE

» The storage compartment in the right side fairing panel is locked.◁

– with topcase OA

» The topcase is locked.◁

» These locks cannot subsequently be unlocked manually.

The locked symbol appears on the display.

– with anti-theft alarm system (DWA) OE

» The functionality and operation of the remote control of the alarm system are described in the corresponding section.◁

Unlocking

– with central locking system OE

- Turn on ignition and press button **1**.
- Alternative: press button **2** on the remote key or the key fob transmitter.

» 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 OA

» 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) OE

» The functions of the remote control for the anti-theft alarm system are described in the corresponding chapter.◁

Emergency unlocking

– with central locking system OE

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 (➠ 198).
- Open case (➠ 197).

- First turn the key in the top-case lock 45° past the LOCK position, then turn it to the dot position and press in the lock barrel.

» The release lever pops open.

Registration of remote controls

– with central locking system[OE]
– with anti-theft alarm system (DWA)[OE]
– without Keyless Ride[OE]

If a remote control is to be replaced or if you are going to use an additional remote control, you must always register all the remote controls in the set.

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

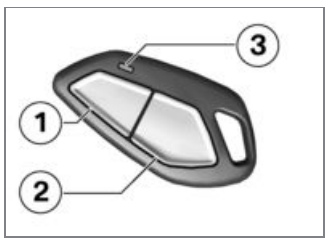
- Press button **2** on the remote control three times.

» One sound signal is issued.

- Turn off the ignition within ten seconds.

You can now proceed to register all the remote controls.

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



- Hold down buttons **1** and **2**.

» LED **3** flashes for about ten seconds.

- Once LED **3** no longer flashes, release buttons **1** and **2**.

» **3** LED lights up.

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

» One sound signal is issued and LED **3** goes out.

To complete logon:
- Switch off ignition.

» Three sound signals are issued.

» The logon is also ended in the following situations:

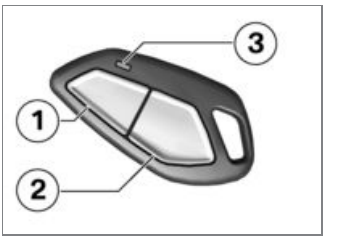
– 4 remote controls have been logged on.
– After logon of the first remote control, no button was pressed for approx. 30 seconds.

Synchronizing the remote-control units

– with central locking system OE
– with anti-theft alarm system (DWA) OE
– without Keyless Ride OE

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.

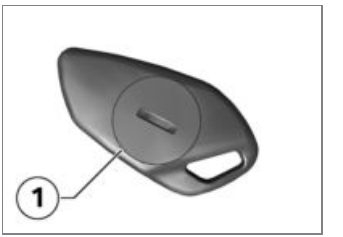
- Press button **1** or button **2**.

» LED **3** goes out.

Replacing battery in the remote-control unit

– with central locking system OE
– with anti-theft alarm system (DWA) OE
– without Keyless Ride OE

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

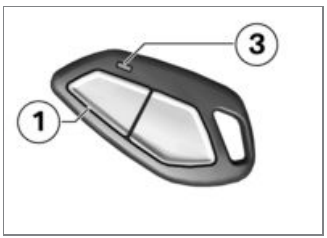
Unsuitable or improperly inserted batteries

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.

Battery type
For remote-control of 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.

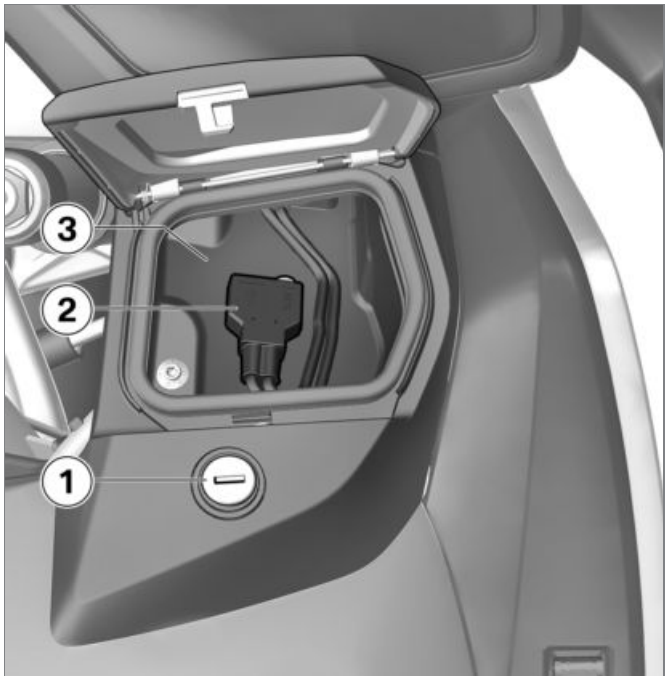
» The remote-control is again ready to be used.

Audio system

General operation

Multifunction display

1 Text field
2 Audio source (➠ 96)
3 Symbol for the audio source
4 Playback mode (depends on audio source)
5 Bluetooth status (➠ 113)
6 Mute (MUTE) (➠ 98).



Audio system storage compartment

1 Lock
Operating the right storage compartment (➠ 87).

2 Connection for USB connector and 3.5 mm stereo jack (➠ 109)

3 Storage compartment for audio systems and mobile phone

Switching on audio system

- Switch on the ignition.

» If the audio system was switched on before switching off the ignition, the system is automatically switched on again.

- If the audio system does not switch on automatically: Press the **ON** button to switch on the audio system.

» The audio system will be in the most recently used operating mode.

Switching off audio system

- Switch off the ignition or with the ignition on, press the **ON** button and hold it down until the audio system switches off.

Select audio source

– With Canada export NV

- Press the **SRC** button to select the audio source.

The following audio sources are possible; the appropriate symbol appears on the display:


Radio


MP3 mass storage device (USB) or Apple iPod (IPOD)


Satellite radio (only in countries in which reception of "Sirius Satellite Radio" is possible)

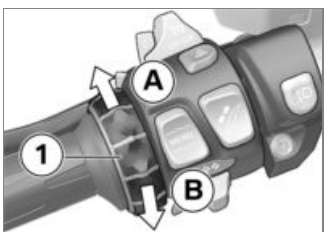
Other audio devices (AUX)◁

Loudspeakers and Bluetooth

Playback of the audio system is via either the on-board speakers or a Bluetooth-paired output device. Should the Bluetooth function not be offered in certain countries, then audio playback is only possible via the loudspeakers.
Switching the speakers off causes automatic activation of the Bluetooth function. Switch on the speakers to switch off the Bluetooth function.

If the audio playback is carried out with a -capable output device, then the volume must be set on this device. The Multi-Controller cannot be used for this purpose. Exception: if a BMW Motorrad communication system with Bluetooth 2.0 radio standard is connected, the volume can also be controlled with the Multi-Controller (➠ 117).

Adjusting the volume



- Turn Multi-Controller **1** in direction **A** to increase volume.
- Turn Multi-Controller **1** in direction **B** to increase volume.

Scale **2** appears on the display while the volume is being adjusted. The scale disappears automatically once no further changes are made to the volume setting.

If the display shows Speaker OFF, the speakers are switched off and Bluetooth is switched on.

Mute (MUTE)

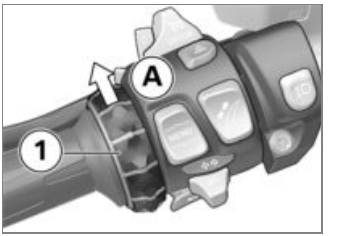
- Press the **ON** button.

» All sound output is switched off.

The speaker symbol appears on the display.

» If one or two BMW Motorrad communication systems with the Bluetooth radio standard 2.0 are connected, the helmets are switched over from audio playback to the intercom mode.

- Press the **ON** button again to cancel muting and the intercom mode.



- Alternatively: Turn Multi-Controller **1** in direction **A** to cancel muting.

» If the system is paired to a BMW Motorrad communication system using the Bluetooth 2.0 radio standard, the mute function can be canceled only by pressing the **ON** button.

Switching speakers on and off

- Call up the `Settings` menu and select `Audio` - `Loudspeaker`.

» The following settings are available:

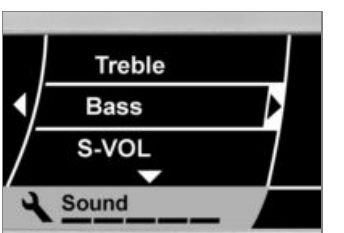
– `On`: speakers on.

– `Off`: speakers off.

» If the speakers are switched OFF the Bluetooth function is automatically switched ON, and vice versa.

Adjust sound setting

- Call up menu `Settings` and select menu item `Audio` - `Sound`.



» The following settings are available:
– `Treble`: Reduce (-1 to -6) or increase (+1 to +6) high-frequency response.
– `Bass`: Reduce (-1 to -6) or increase (+1 to +6) bass response.
– `S-VOL`: Switch off (`OFF`) the speed-dependent volume control or select the level (1 to 3).
– `Loudness`: Switch the sound graph on (`On`) or off (`Off`).
– `AUX`: Adjust the input signal level (1 to 6).
• Select the desired menu item, make the setting, and leave the menu.

Volume and speed

The audio system can automatically adjust the volume to the road speed. The rate at which the volume increases in relation to the speed can be set to three levels. Level 3 corresponds to maximum increase.
Automatic volume adjustment does not work on Bluetooth connected communication systems.

Input signal level

The volume can be set as described on page (➠ 97).
In the case of audio devices that can only be connected to the system via the jack, the adjustable volume depends on:
– the output power of the audio device
– the input signal level selected
– the volume set on the audio device.

The volume on the audio device and the input signal level should be adjusted so that the resulting volume range matches the range of the other operating modes.

Radio

Selecting the band

- Press and hold down the **MODE** button until the frequency band changes.

» Each time you press the button the system toggles between FM, AM and WB.

Saving stations

The BMW Motorrad audio system has 24 station memory slots for each frequency band.

– Twelve system memory slots: The Autostore function has to be used to assign the twelve stations with the strongest signals to these slots.
– Twelve personal memory slots: The rider can manually assign a station to each of these memory slots.

Finding and saving stations automatically

- Selecting the band (➠ 100).

- Hold down **MEM** button until `AS search` is displayed.

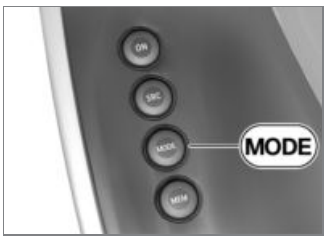
NOTICE

After the audio system is switched on, the tuner requires approximately a minute to find all receivable stations. Do not start the automatic scan until after this time, as otherwise the stations not found up to that point cannot be taken into account.◀

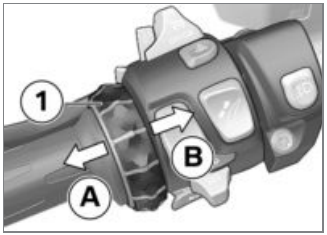
» The twelve stations with the strongest signal will be found and saved. Then the station saved in memory slot 1 will be played.
» If fewer then twelve stations are found the lowest frequency in that band will be saved in the remaining memory locations.
» If no station can be found, `No signal` will be displayed.

Searching for station manually

- Selecting the band (➠ 100).



- Repeatedly press the **MODE** button until MAN appears in the top line of the display.



- Push Multi-Controller **1** in direction **A** or **B** to find the next available station.
- Press and hold Multi-Controller **1** in direction **A** or **B** to select a specific frequency.

» The frequency search stops as soon as the Multi-Controller is released, even if no playable station has been found on that frequency.

Manually storing stations

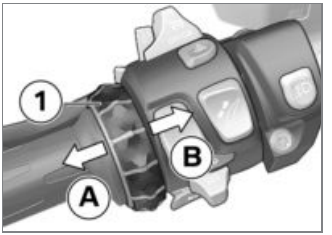
- Select a station or frequency from the frequency band.

NOTICE

It is also possible to select stations from the system memory or the personal memory and then move them to a different slot in the personal memory.◀

- Press **MEM** button to save selected frequency/station.

» Memory will flash in the display.



- Push Multi-Controller **1** in direction **A** or **B** to select the required slot in the personal memory list.

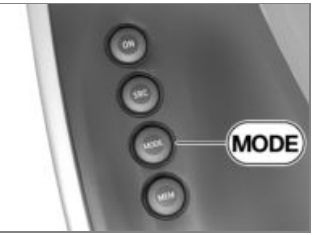
» The current assignment of this memory slot flashes in the display.

- Press **MEM** button again to save station/frequency to selected memory slot.

» The station previously saved there will be deleted.

Playing stored station

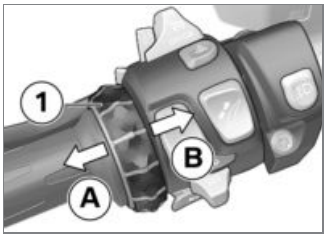
- Selecting the band (➠ 100).



- To select a station from the system memory, press the **MODE** button repeatedly until AS is displayed.

AS appears at position **1** and the active memory slot appears at position **2**.

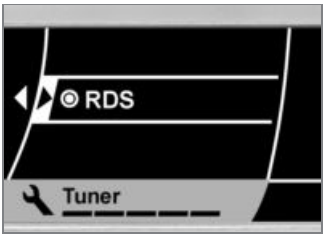
- To select a station from the personal memory, repeatedly press the **MODE** button until position **1** shows MEM.



- Press Multi-Controller **1** in direction **A** or **B** to select the memory slot.

Select the reception settings

- Call up menu Settings and select menu item Audio - Tuner.



» The following setting is possible:

– RDS: Switch RDS on or off

- Select the desired menu item, make the setting, and leave the menu.

Radio Data System (RDS)

Some stations in the FM band transmit additional information, including the program name. The name of the station can only be displayed if the RDS function is on. If no station name is being

transmitted, reception range and the frequency will be shown in the display.

Satellite radio

– With Canada export[NV]

Satellite radio

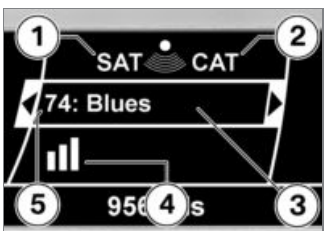
The functions for the reception of satellite radio described in this chapter are only offered in countries in which the reception of "Sirius Satellitenradio" is possible.

Subscribing to stations

To listen to a station, it must first be subscribed to. Subscribing to a station can generate costs not borne by BMW Motorrad. Information on the available stations can be viewed at "www.sirius.com" or "www.siriusxm.com".

A station is activated by phone by calling the phone number 1.888.539.7474. In addition, the serial number of the audio system is also required (➠ 109).

Multifunction display



1 Audio source Sirius Radio
2 Playback mode:
SR: Play a channel from the personal list of presets (➠ 107)
CAT: Play a channel from the list of categories (➠ 105)
3 Text field for selectable channel information (➠ 105)
4 Display of signal strength (➠ 104)
5 Memory slot or channel number (depending on playback mode) (➠ 105) (➠ 107)

Signal strength


No signal

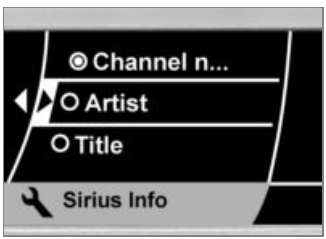

Poor signal


Good signal


Very good signal

Selecting station information

- Call up the Settings menu and select Audio - Sirius - Sirius Info.



The following information types can be displayed in the text field:

– Channel n...: Name of station
– Artist: Name of artist
– Title: Name of track
– Composer: Name of composer

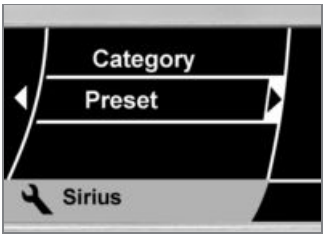
» The solid circle indicates the current information.

- Select the information type you want and exit the menu.

» If the selected information is not available, the station name is displayed (e.g. artist and composer for news).

Selecting category and channel

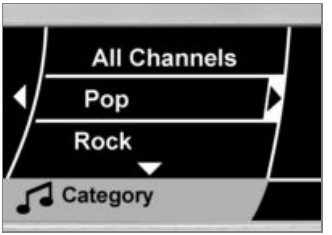
- If the audio system is in the Preset playback mode (SR in the display) or if you want to change the category: press the **MODE** button.



The choice of playback mode appears on the display.

– Category: Selection of a channel from the list of categories
– Preset: Selection from the personal list of presets

- Select Genre.



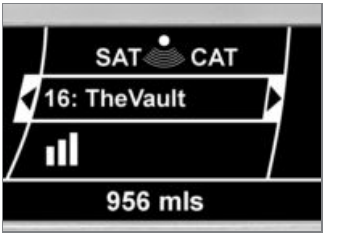
A list of the categories corresponding to the channels for which a subscription has been paid appears on the display. All channels for which no subscription has been taken out are grouped in the `unsubscribed` category.

» The solid circle indicates the current category.

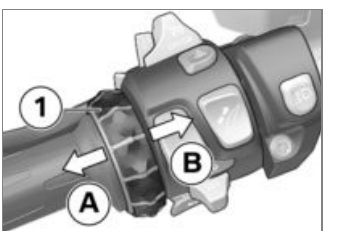
- Select the category you want.

» A list of the channels available in the category you selected appears on the display.

- Select the channel you want.



The channel information you selected appears in the text field.



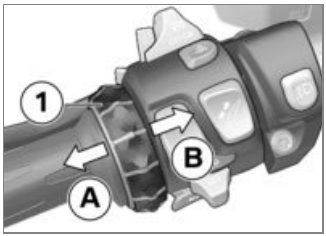
- If the audio system is already in the `Genre` playback mode: press multi-controller **1** in direction **A** or **B** to go to the next channel in the selected category.

Save channel

- Selecting category and channel (➠ 105).

- Press the **MEM** button.

» `Memory` is displayed.



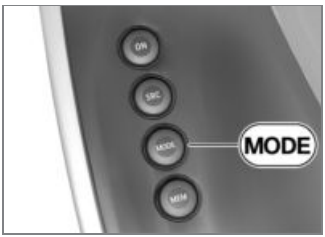
- Press Multi-Controller **1** in direction **A** or **B** to select the desired memory slot.

» The current assignment of this memory slot flashes in the display.

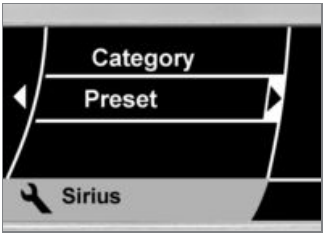
- Press **MEM** button again to save station on selected memory space.

» The station previously saved there will be overwritten.

Calling stored station



- If the audio system is in the `Genre` playback mode (`CAT` showing on the display): press the **MODE** button.



The choice of playback mode appears on the display.

– `Genre`: Selection of a channel from the list of categories
– `Preset`: Selection from the personal list of presets

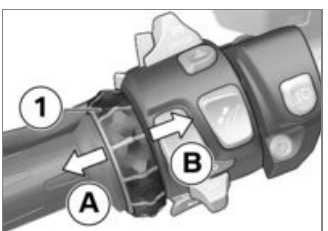
• Select `Preset`.

The list of memory slots appears on the display.

» The solid circle indicates the current selection.

• Select the memory slot you want.

The channel information you selected appears in the text field.



• If the audio system is already in the `Preset` playback mode: press multi-controller **1** in direction **A** or **B** to select one

of the other assigned memory slots.

Displaying serial number

- Call up the Settings menu and select Audio - Sirius - Sirius ESN.

» ESN and the twelve-digit serial number appear on the display. The telephone number to dial in order to take out a subscription for additional channels also appears on the display.

Status messages

Under certain circumstances, the following status messages are shown in the text field:

"CALL 888-539 -SIRI"
To subscribe to this station, the hotline must be called.
Sirius Hotline: 1.888.539.7474

"INVALID CHANNEL"
The stations is no longer valid.

"LINKING"
Signal is being searched for.

"SUB UPDT"
The subscription is checked and updated.

"UPDATING"
The station number assignment is being updated.

External playback devices

Requirements

Audio devices (such as MP3 players) or suitable media storage devices (e.g. USB sticks) can be connected to the audio system via the plug in the storage compartment. These plugs include

– a 3.5 mm jack plug,
– a USB connection (supports USB 1.1 and USB 2).

The audio device must
– have a compatible connector,
– fit into the storage compartment,
– be capable of withstanding vibrations arising from normal motorcycle use,
– be able to withstand the high temperatures occurring inside the storage compartment in summer.

ATTENTION

Increased mechanical stressing of unsuitable audio devices

Component damage, no liability for BMW Motorrad

- Refer to the operating instructions of your audio

device for any possible usage restrictions.◀

ATTENTION

High temperatures in storage compartments

Damage to stored items or devices

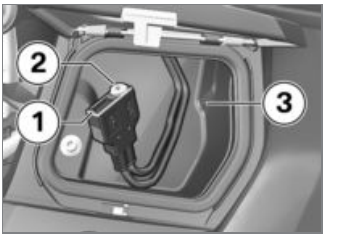
- Refer to the device operating instructions for possible usage restrictions.◀

BMW Motorrad advises against using devices with hard disks as media storage devices, as vibrations may cause playback to skip and may damage the device.

The audio system provides a supply voltage via the USB plug, through which it is possible to charge mobile phones and other such devices. Connecting several USB devices via a hub is not possible as the supply voltage is limited.

Connecting audio device

- Switching off audio system (➠ 96).



- Use USB plug **1** to connect media storage device to audio system.
- Connect an Apple iPod to audio system using a USB plug **1** and an adapter cable **2**.

NOTICE

You can obtain the correct adapter cable from your BMW Motorrad retailer.◀

- Connect other audio devices to audio system and switch on via jack plug **2**.
- Position the audio device in the storage compartment **3**.

ATTENTION

Improper routing of the connecting cable

Damage to the seal

- Do not pass the access line between storage compartment and lid to the outside.◀
- Close the lid while making sure not to pinch the audio device or the cable.
- Switching on audio system (➠ 96).
- Select audio source (➠ 96).

Data memory audio source

The audio system initially scans the media storage device for MP3 files. While the scan is taking place, LOADING is shown in the display. Subdirectories are also scanned. The track titles in the MP3 data (in the ID3-Tag) determine the alphabetical order of the playback list and the title displayed on the system. This may not necessarily be the same as the filename.
Only characters from the ASCII character set (Windows 1252) can be displayed. Other character sets are not shown at all or only incorrectly.
Playlists can be created as a means of sorting tracks. The tracks in a playlist are played in the order in which they are listed.
The USB stick used must support the "Mass Storage Format", may only have one partition and must be formatted according to the FAT 16 or FAT 32 standard.
If an MP3 player is connected to the audio system via the USB connection, it must also support the "Mass Storage Format".

iPod audio source

The audio system will first try and detect any tracks saved on an iPod. While the scan is taking place, LOADING is shown in the display. The track titles from the iPod are used as titles for alphabetic sorting and display.
The playlists from the iPod will also be found in addition to the individual tracks. Tracks are played back in the sequence required by the iPod.
The iPod receives its power supply via the adapter cable.

iPhone

The iPhone can also be used as an audio source in the same ways as the iPod. The telephone functions are switched off during this time and corresponding information may be shown in the display of the iPhone.

Sound quality

BMW Motorrad recommends making the following settings in the system settings of the iPod/ iPhone to achieve the best possible sound quality:
– Volume adjustment: ON
– Equalizer: OFF

Other playback devices

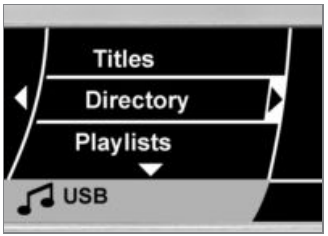
The audio system outputs the track that is currently being played back by the playback device via the speakers. The playback device cannot be controlled by the system if it is only connected via the jack plug.

Audio playback

Select the playback mode

• Select USB or IPod as the audio source.

• Press the **MODE** button.



» The possible playback modes are displayed:

– Titles: All audio tracks found are listed in alphabetical order.

– Directory: All directories found containing audio tracks are listed in alphabetical order. When you select a directory the titles of the tracks and subdirectories it contains are listed.

– Playlists: All playlists found are listed in alphabetical order. When you select a playlist the titles of the tracks it contains are listed.

– Artists: All the artists stored in the MP3 data are listed in alphabetical order. When you select an artist the titles of all that artist's tracks are listed.

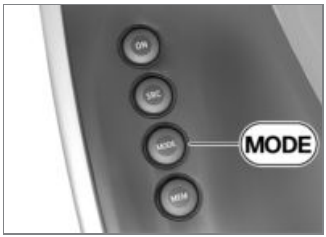
– Albums: All the albums stored in the MP3 data are listed in alphabetical order. When you select an album the titles of all the tracks on that album are listed.

– Genres: All the musical genres stored in the MP3 data are listed in alphabetical order. When you select a genre the titles of all the tracks in that genre are listed.

» Unknown appears for information not saved in the MP3 data.

• Once you have selected the playback mode: select the title of the track with which you want playback to start.

Random playback



- You can activate random playback sequencing for each playback mode. To do so, press and hold down the **MODE** button.

RND is displayed at position **1**.

Bluetooth

General information

The Bluetooth function may not be offered depending on the country of use.

Bluetooth is a short-range wireless technology. Bluetooth devices are short-range devices (transmitting with a limited range) on the license-free ISM band (Industrial, Scientific, Medical) between 2.402 GHz and 2.480 GHz. It can be operated anywhere in the world without a license being required. Although Bluetooth is designed for establishing robust connections over short distances, faults are possible as with any other wireless technology. Connections can be subject to interference, can be briefly interrupted or lost entirely. Especially when several devices are operated in one Bluetooth network, there is no guarantee for smooth operation in every situation.

Possible sources of interference:

– Interference fields due to transmission towers and similar.
– Devices with incorrectly implemented Bluetooth radio standard.
– By nearby Bluetooth-capable devices.

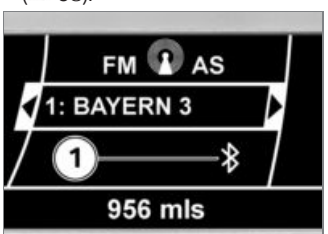
Note on health:
Currently there is no evidence that the use of Bluetooth devices has a negative impact on human health. The BMW Motorrad audio system transmits at a maximum of 10 mW; a mobile phone by contrast can have a transmit-power rating as high as 2 W. The ISM frequency band used by Bluetooth is reserved for the worldwide use of devices in the industrial, scientific and medical sectors and given the low transmit-power ratings, Bluetooth devices are considered safe in terms of potential health risks.

Playback via helmet

The audio system can be connected to the Bluetooth-enabled BMW Motorrad communication systems. Playback in this case is not through the speakers, but via radio transmission through the headphones in the helmet.

Switching Bluetooth function on or off

- To switch on the Bluetooth function: switch off the speakers.
- To switch off the Bluetooth function: switch on the speakers.
- Switching speakers on and off (➠ 98).



Bluetooth symbol **1** appears on the display.

A dot to the left of the Bluetooth symbol indicates that the rider's helmet (`Helmet 1`) is connected to the audio system. A dot to the right of the Bluetooth symbol indicates a connection to the passenger's helmet (`Helmet 2`). A flashing dot indicates that the audio system is searching for the corresponding helmet.

» If pairing information for a communication system is saved in the audio system's memory, the audio system automatically searches for this system.

If connection to a BMW Motorrad communication system is not established despite the fact that the system is switched on:

- Briefly press the on/off button of the communication system twice in quick succession.

Pairing

Two Bluetooth devices have to be paired before they can communicate. This process of mutual recognition is known as pairing.

When two devices have paired they remember each other, so the pairing process is conducted only once, on initial contact.
In order to also connect the passenger helmet to the audio system in addition to the rider's helmet, two BMW communication system with Bluetooth 2.0 radio standard must be used. If both BMW systems are using Bluetooth 1.2 radio standard, only one helmet may be connected to the audio system.
Refer to the operating instructions of your communication system for information on Bluetooth radio standards.

During the pairing process, the audio system searches for other Bluetooth-compatible devices within its reception range. The conditions that have to be satisfied before the audio system can be paired with another device are as follows:

– The Bluetooth function of the device must be enabled
– The device must be "visible" to others
– The device must support the A2DP profile
– Other Bluetooth-capable devices must be OFF (e.g. mobile phones and navigation systems).

Please consult the operating instructions for your communication system.

Pairing information already saved in the BMW Motorrad communication system must first be deleted. Always start by pairing with the audio system first.

Perform pairing

- Switch the Bluetooth function on and the loudspeakers off.
- Switch off all other Bluetooth-enabled devices (e. g. mobile phones) within ten meters (33 ft) (or at least their Bluetooth function).
- Activate helmet's Bluetooth function and visibility (see helmet operating instructions).

NOTICE

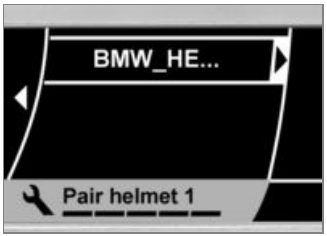
It may take a while for the Bluetooth device to be recognized. Activate the visibility and the search function at the same time, to allow a long search period.◀

- Call up the `Settings` menu and select `Audio` - `Login to Bluetooth`.
- Select `Helmet 1` to establish the connection to the communication system in the rider's helmet.
- Select `Helmet 2` to establish the connection to the communication system in the

passenger's helmet, once the rider's helmet has been paired (possible only with two BMW Motorrad communication systems with Bluetooth 2.0 radio standard).

- Select `Log off all` to delete the stored pairing information.

» If you selected `Helmet 1` or `Helmet 2`, the audio system now searches for visible Bluetooth-compatible devices; the word `Search...` appears on the display. Now audio playback takes place during the search. All the devices found in the search are then listed.



BMW Motorrad communication systems are shown as `BMW_HE...`.

- Select the communication system to establish the connection.

» `Connect` is displayed.

» One of the following will appear:

– `Successful`: Connection established, playback via speaker in helmet.

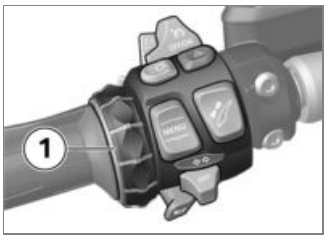
– `Not possible`: You have attempted to pair the passenger's helmet before pairing the rider's helmet or there is no BMW Motorrad communication system installed in the rider's helmet.

– `Failed`: Connection cannot be established.

If no connection could be established:

- If you want to connect two communication systems: step through the pairing process for the rider's helmet first, then pair the passenger's helmet. Check that both communication systems support Bluetooth 2.0 radio standard or higher.
- Turn off any Bluetooth devices in the vicinity that may not have been switched off.
- Delete the pairing information saved in the audio system.
- Delete the devices stored in the communication system.
- Repeat the pairing procedure.

Additional functions



Rider's helmet with BMW Motorrad communication system and Bluetooth 2.0 radio standard

– The volume of the helmet speakers can be adjusted directly using the Multi-Controller **1**.
– Changing the volume in the helmet will be reflected in the display.

The volume for helmet 2 cannot be adjusted by means of the multi-controller.

Rider's and passenger helmet with BMW Motorrad communication system with Bluetooth 2.0 radio standard

– If the **ON** button (MUTE function) is pressed, playback is interrupted and the intercom function is switched on in both helmets. Pressing the **ON** button again terminates the intercom function and playback resumes (it may take up to approx. 10 seconds to switch between the two).

Setting

Mirrors

Adjust mirrors

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

Headlight

Headlight range and spring setting

Through the adaptation of the spring setting, the headlight range generally remains constant. Only with a very heavy payload can adjustment of the spring setting be insufficient. If that is the case, the headlight range must be adapted to the weight.

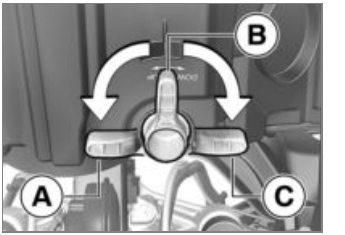
NOTICE

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 setting is no longer able to maintain the correct beam height to avoid blinding oncoming traffic owing to high vehicle payloads:



- The headlight range is adjusted using a swiveling lever.
– **A** position for low payload (only driver)
– **B** position for driver with payload
– **C** position for high payload (in passenger mode)

Windshield

Adjusting windshield

- Switch on the ignition.
» When riding off, the windshield automatically moves to its last

position before the ignition was turned off.

- Press top button **1** to raise the windshield.
- Press bottom button **1** to lower the windshield.
- Switch 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.

- Ensure clearance of the windshield.

» The windshield does not automatically move to the lower end position.

- Switch on the ignition.
- Move windshield to the upper and lower end positions using button **1**.
- Switch off ignition.

» The range of adjustment of the windshield is calibrated.

» The windshield does not respond to pressing the button **1**.

- Please contact a specialist workshop, preferably an authorized BMW Motorrad Retailer.

The proper functioning of the pressure-sensitive finger guard system cannot be ensured if a windshield that has not been approved by BMW Motorrad has been installed.

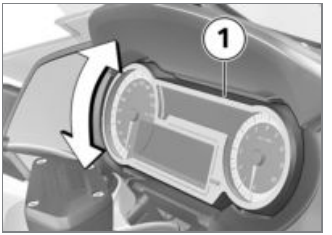
- In this case: Ensure the clearance of the windshield before switching off the ignition.

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.

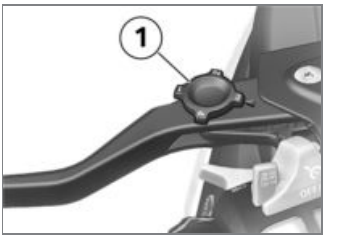
Clutch

Adjusting clutch lever

WARNING

Adjusting the clutch lever while driving
Accident hazard

- Adjust the clutch lever when the motorcycle is stationary.◀



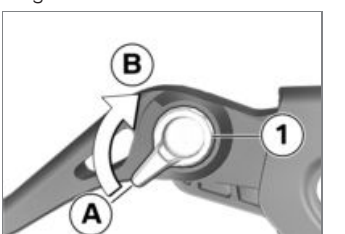
- Turn the adjustment wheel **1** into the desired position.

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

– with Option 719 Milled Parts Set Classic OE
or
– with Option 719 Milled Parts Set Storm OE
or
– with HP machined-parts package OE



- Turn the adjustment lever **1** to the desired position.

» Adjustment options:

– From position **A**: smallest distance between handlebar grip and clutch lever.
– Five steps toward position **B** to increase the distance between the handlebar grip and the clutch lever.◁

Gearshift lever

– with Option 719 Milled Parts Set Classic OE

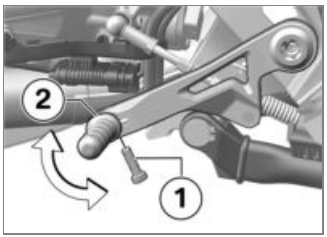
or

– with Option 719 Milled Parts Set Storm OE

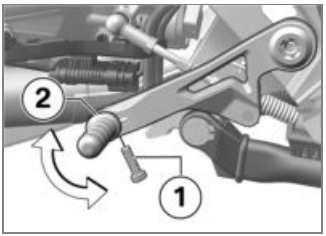
or

– with HP machined-parts package OE

Adjusting gearshift lever foot piece



- The distance between the feet and the height of the foot piece **2** can be adjusted by turning the foot piece into different positions.
- Remove screw **1**.



- Clean the thread.
- Turn the foot piece **2** into the desired position.
- Install the **new** screw **1**.

	Foot piece to gearshift lever
Thread-locking compound: micro-encapsulated	
7 lb/ft (10 Nm)	

Brakes

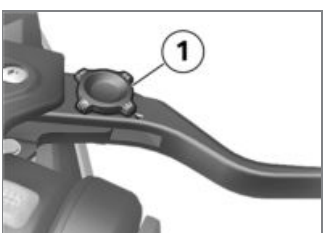
Adjust brake lever

WARNING

Adjusting the brake lever while driving

Accident hazard

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



- Turn the adjustment wheel **1** into the 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.

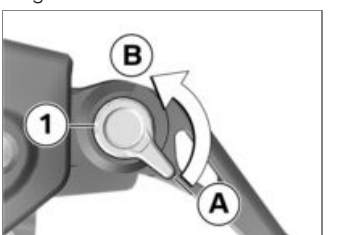
– with Option 719 Milled Parts Set Classic OE

or

– with Option 719 Milled Parts Set Storm OE

or

– with HP machined-parts package OE



- Turn the adjustment lever **1** to the desired position.

» Adjustment options:

– From position **A**: smallest distance between handlebar grip and handbrake lever.

– Five steps toward position **B** to increase the distance be-

tween the handlebar grip and the handbrake lever.◁

Adjusting the footbrake lever foot piece

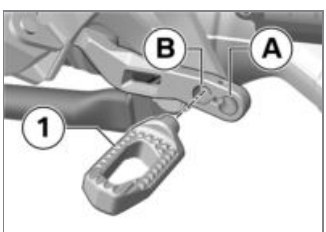
– with Option 719 Milled Parts Set Classic OE

or

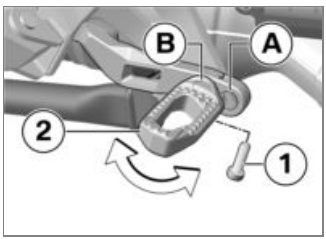
– with Option 719 Milled Parts Set Storm OE

or

– with HP machined-parts package OE



- The distance between the feet and the height of the foot piece **1** can be adjusted by turning them by 180° and installing them in position **A** or **B**.
- Remove screw **1**.



- Clean the thread.
- Install the foot piece **2** in the desired position **A** or **B**.
- Turn the foot piece **2** into the desired position.
- Install the **new** screw **1**.

Foot piece on footbrake lever
Thread-locking compound: micro-encapsulated

Foot piece on footbrake lever
7 lb/ft (10 Nm)

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.

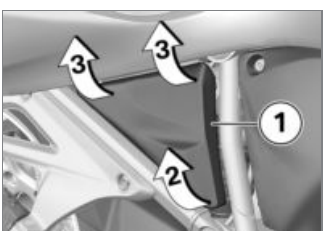
Adjusting spring preload at rear wheel

WARNING

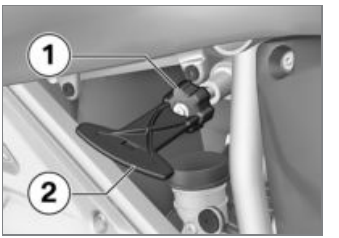
Adjusting the spring preload while riding.

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**.



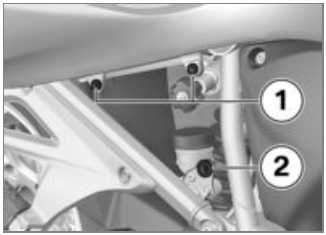
WARNING

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 OE
Turn adjuster wheel counter-clockwise as far as possible. (One-up without load)
Turn adjuster wheel as far as possible counterclock-wise, 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 motorcycle, ensuring that support surface is firm and level.
- Adjust damping from the left side of the vehicle.

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

NOTICE

BMW Motorrad recommends selecting the one-up with luggage setting for special vehicles.◀

Basic setting of rear wheel damping
– without Dynamic ESA OE
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

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.◀

Loading

WARNING

Reduced riding stability caused by overloading and uneven loading

Accident hazard

- Do not exceed the gross weight limit and observe the loading information.◀
- Adjust spring setting and damping rate for the 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 (see also "Accessories" chapter).

– with tank bag OA
- Observe maximum payload of the tank bag.

Payload of tank bag
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
– Unevenly distributed load
– Loose clothing
– Insufficient tire pressure
– Tire tread in poor condition
– 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.◀

Regular checking

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 (➠ 170).
- Checking tire tread depth (➠ 173).
- Checking tire pressure (➠ 172).
- Check secure hold of cases and luggage.

– without Dynamic ESA OE

- Adjusting spring preload at rear wheel (➠ 126).
- Adjusting damping on rear wheel (➠ 127).◁

At every third refueling stop

- Checking engine oil level (➠ 164).
- Checking the front brake pad thickness (➠ 166).
- Checking the rear brake pad thickness (➠ 167).
- Checking the front brake fluid level (➠ 168).
- Checking the rear brake fluid level (➠ 169).
- Checking coolant level (➠ 170).

Starting

Starting the engine

- Switch on ignition.

» Pre-Ride-Check is carried out. (➠ 133)
» ABS self-diagnosis is performed. (➠ 134)
» ASC self-diagnosis in progress. (➠ 135)

- 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. (➠ 214)

Pre-Ride-Check

Once the ignition is turned on, the instrument cluster performs a general warning light test , the "Pre-Ride-Check".

Phase 1

⚠ shows yellow.

» Needles of the instruments move from beginning to end point one time.

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 specialist workshop, 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[OE]

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.

Breaking-in

Engine

- While running in the motorcycle, vary the throttle opening and engine-speed range frequently; avoid driving for long periods at a constant speed.
- Try to do most of your riding during this initial period on twisting, fairly hilly roads, avoiding high-speed main roads and highways if possible.
- Observe the engine run-in speeds.

 Engine break-in speeds
<5000 min^{-1} (Mileage 0...621 miles (0...1000 km))
No full throttle (Mileage 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 exerting greater pressure on the brake levers.

WARNING

New brake pads

Extension of the braking distance, accident hazard

- Brake early.◀

Tires

New tires have a smooth surface. This must be roughened by riding in a restrained manner at various 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 OE

Shift assistant Pro

Requirement

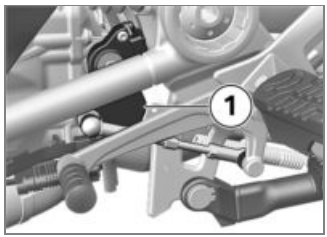
The Gearshift Assistant provides assistance for upshifts and downshifts, without the rider having to actuate the clutch or throttle grip. This is not an automatic-shift system. The rider is the most important part of the system and decides when to shift gears.

NOTICE

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

NOTICE

When downshifting using the Pro Gearshift Assistant, 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 gearshift shaft detects the gearshift request and triggers the shift assistance.

» When riding at a steady speed in a low gear at high engine rpm, an attempt to shift gear without pulling the clutch can cause a severe load-change reaction. BMW Motorrad recommends disengaging

the clutch for shifts in these circumstances. Riders should avoid using the Gear Shift Asistant at engine speeds approaching the engine governor's rpm limit.

» Shift assistance is not available in the following situations:

– With clutch actuated.
– Gearshift lever not in its initial position.
– When upshifting with closed throttle valve (coasting overrun) or when decelerating.
– When downshifting with open throttle valve or when accelerating.

• To be able to perform another gear change using the Gearshift Assistant, the gearshift lever must be fully released after the first gear shift.

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.

– with riding modes Pro OE

The supporting function of the Dynamic Brake Control is also available.

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 my 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 brak-

ing performance in the inclined position.◀

– with riding modes Pro OE
In the event of emergency braking, Dynamic Brake Control enhances the braking effect and intervenes if the throttle grip is accidentally actuated during braking.

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

Folding in the center stand in case of strong movements
Component damage cause by tipping over

- Do not sit on the vehicle while it is resting on the center stand.◀
- Fold down center stand and prop 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.◀
- Observe the maximum ethanol content of the fuel.

Recommended fuel quality
Premium unleaded (max. 15 % ethanol, E15) min 89 AKI (min 95 ROZ/ RON) 90 AKI
Alternative fuel quality
Regular unleaded (restrictions with regard to power and fuel consumption) (max. 15 % ethanol, E15) min 87 AKI (min 91 ROZ/ RON) 87 AKI

» After refueling with lower quality fuels, there may occasionally be a knocking noise.

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.◀

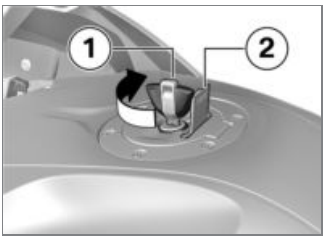
ATTENTION

Contact of fuel and plastic surfaces

Damage to surfaces (become unattractive or cloudy)

- Immediately clean plastic surfaces after contact with fuel.◀

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



- Open the protective cap **2**.
- Unlock the fuel tank cap in a clockwise direction using the ignition key **1** and fold it up.

- Refuel with a fuel meeting the specifications listed above, continuing until fuel is no higher than lower edge of fuel filler neck.

NOTICE

If refueling is carried out after running on fuel reserve, the resulting filling capacity must be greater than the fuel reserve so that the new fill level is detected and the fuel reserve indicator 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 tank cap down firmly to close.
- Remove ignition key and close protective cap.

Refueling procedure

– with Keyless Ride[OE]

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.◀

ATTENTION

Contact of fuel and plastic surfaces

Damage to surfaces (become unattractive or cloudy)

- Immediately clean plastic surfaces after contact with fuel.◀
- Make sure the ground is level and firm and place the motorcycle on its center stand.

– with Keyless Ride[OE]

- Switch off ignition (➠ 55).

NOTICE

After the ignition is switched off, the fuel filler cap can be opened within the specified run-on time even without the radio-operated key being within the reception area.◀

After-running period for opening the fuel filler cap
2 min

» There are **2 ways** to open the fuel filler cap:

– Within the after-run time period.

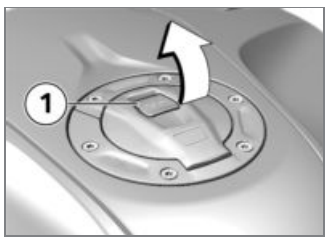
– After the after-run period is over.

Version 1

– with Keyless Ride[OE]

Requirement

Within the coastdown time



- Slowly pull the lug **1** of the fuel filler cap upward.

» Fuel filler cap unlocked.

- Open fuel filler cap completely.

Version 2

– with Keyless Ride[OE]

Requirement

After run-on time expires

- Bring radio-operated key into reception range.
- Slowly pull up tab **1**.

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

- Slowly pull the tab **1** of the fuel cap upward again.

» Fuel filler cap unlocked.

- Open fuel filler cap completely.

WARNING

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

Accident hazard

- Do not overfill the fuel tank.◀
- Refuel with a fuel meeting the specifications listed above, continuing until fuel is no higher than lower edge of fuel filler neck.

NOTICE

If refueling is carried out after running on fuel reserve, the resulting filling capacity must be greater than the fuel reserve so that the new fill level is detected and the fuel reserve indicator 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 the ignition is switched on.

Securing motorcycle for transportation

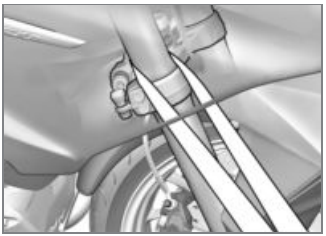
- Protect all component surfaces against which luggage straps are routed against scratching. For example, use adhesive tape or soft cloths.

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 the motorcycle onto the transportation flat and hold it in position; do not place it on the side stand or center stand.

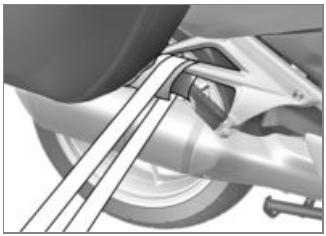


ATTENTION

Pinching of components

Component damage

- Do not pinch components, e.g. brake lines or wiring harnesses.◀
- Pass the tensioning straps on the left and right through the fork bridge and strap the motorcycle down.



- Fasten the rear tensioning straps on both sides of the holder for the passenger footrests and tighten.
- Tension all tensioning straps evenly so that the vehicle is securely fastened.

Technology in detail

General instructions

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

Antilock Braking 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.
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 ABS ensures riding stability on any surface within the limits of riding physics.

From a speed greater than 2.5 mph (4 km/h), the BMW Motorrad ABS can ensure riding stability on any surface within the limits of riding physics. At lower speeds, the BMW Motorrad ABS cannot provide optimal support on all surfaces due to system limitations.

The system is not optimized for the special conditions encountered under the extreme conditions of competitive off-road and race-track use.

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.

Traction control (ASC/DTC)

How does ASC/DTC work?

BMW Motorrad ASC/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.

What are the design features of ASC/DTC?

BMW Motorrad ASC/DTC is designed as an assistance system for the rider and for riding on public roads. The extent to which the rider affects ASC/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 the special conditions encountered under extreme weather during off-road and race-track use. BMW Motorrad ASC/DTC can be switched off under these conditions.

⚠ WARNING

Risky riding style

Accident hazard despite ASC/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 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/DTC functionality as a safety precaution and an ASC/DTC error will be displayed. A self-diagnosis routine must be completed before the error will be displayed.
For the following unusual riding statuses, this can lead to a BMW Motorrad ASC/DTC error message:

Unusual riding conditions:

– Riding on the rear wheel (performing Wheelies) for an extended period with the ASC/DTC deactivated.
– Rear wheel spinning in place with front brake engaged (Burn Out).
– Warm-up on the center or auxiliary stand at idle or with gear engaged.

By switching the ignition off and on and subsequently riding at a minimum speed, the ASC/DTC is activated again.

 Minimum speed for ASC/DTC activation
min 3 mph (min 5 km/h)

In the riding modes RAIN and ROAD, if the front wheel lifts, the DTC reduces the engine torque and places the front wheel quickly on the ground again; in DYNAMIC mode, DTC permits small supported wheelies. 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 motorcycle conditions. BMW Motorrad ASC/DTC is unable to intervene effectively under these conditions.

Electronic chassis and suspension adjustment (D-ESA)

– with Dynamic ESA OE

Riding position compensation

The Dynamic ESA electronic chassis setting can automatically adapt your motorcycle to the load. If the spring setting is set to AUTO, the driver does not have to worry about adjusting the load.

When the motorcycle is started and while it is being driven, the system monitors the compression of the rear wheel and corrects the spring setting to ensure that the correct driving position is set. The damping is also automatically adjusted to the load.

Using ride height sensors, Dynamic ESA detects the movements of the chassis and suspension and responds to them by adjusting the EDC valves. As a result, the chassis and suspension is adjusted to the conditions of the surface.

Dynamic ESA calibrates itself at regular intervals to ensure that the system is operating correctly.

Adjustment options

Damping modes

– ROAD: damping for comfortable riding on roads
– DYNA: damping for dynamic riding on roads

Load settings

– AUTO: Active riding position compensation with automatic setting of spring setting and damping
– MIN: Minimum spring setting
– MAX: Maximum spring setting
– The MIN and MAX spring settings can be selected by the driver but cannot be changed.

The riding position compensation function is inactive in the settings MIN and MAX.

Riding mode

Riding mode

Riding mode selection

There are three riding modes to choose from for adjusting the motorcycle to the weather, road conditions, and driving style:

– RAIN
– ROAD

– with riding modes Pro OE
– DYNAMIC

Each riding mode affects the behavior of the motorcycle in a different way. In each mode, the ASC/DTC can be switched off; the following explanations always refer to the switched on system. 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 RAIN mode: restrained
– In ROAD mode: direct

– with riding modes Pro OE
– In DYNAMIC mode: dynamic

RAIN mode

The ASC/DTC system intervenes early enough to prevent the rear wheel from spinning. On road surfaces with high to medium grip (dry and wet asphalt to dry cobblestones) the motorcycle remains very stable; movements of the tail are clearly perceptible only on slippery road surfaces (wet bitumen or wet cobblestones).

ROAD mode

The point at which the ASC/DTC system intervenes is later than in the RAIN mode. On road surfaces with high to medium grip (dry and wet asphalt to dry cobblestones) the motorcycle remains stable. Slight rear-wheel drift is perceptible. Movements of the tail are clearly perceptible on slippery road surfaces (wet bitumen or wet cobblestones).

– with riding modes Pro OE

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 under sharp acceleration when cornering.

ABS

– The rear wheel lift assistant is active in all modes.
– ABS is set for road use.

– In the RAIN, ROAD, and DYNAMIC riding modes, ABS Pro is available to its full capacity. The inclination the motorcycle has when braking in curves is reduced to a minimum.

– with Dynamic ESA OE

Dynamic ESA

Base setting for:

– RAIN: ROAD
– ROAD: ROAD

– with riding modes Pro OE
– DYNAMIC: DYNA

Changing riding modes

The changeover of the functions in the engine control and the ASC/DTC is only possible when there is no drive torque at the rear wheel.
To stop transmission of drive torque,
– the motorcycle must be stopped with the ignition switched on,

or
– the throttle grip must be turned back and no brakes actuated.

Dynamic Brake Control

– with riding modes Pro OE

Dynamic Brake Control function

The Dynamic Brake Control function helps the rider in the event of emergency braking.

Detection of emergency braking

– Emergency braking is detected when the front wheel brake is applied quickly and with force.

Behavior during emergency braking

– If emergency braking is applied at a speed of more than 6.2 mph (10 km/h), in addition to the ABS function, the Dynamic Brake Control function will also be activated.
– In the event of partial braking with high brake pressure gradients, Dynamic Brake Control will increase the integral brake pressure on the rear wheel. This shortens the braking distance, enabling controlled braking.

Behavior in the event of accidental activation of the throttle grip

– If the throttle grip is accidentally actuated during emergency braking (throttle position > 5 %), the intended braking effect is ensured by the Dynamic Brake Control ignoring the opening-up of the throttle grip. This ensures the action of emergency braking.
– If the gas is shut off (throttle position <5%) during the intervention of the Dynamic Brake Control, the engine torque required by the ABS brake system will be restored.
– If the emergency braking is stopped and the throttle grip

is still under actuation, the Dynamic Brake Control reduces the engine torque as required by the rider in a controlled manner.

Tire pressure control (TPC/RDC)

– with tire pressure monitor (TPM) OE

Operation

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

The sensors are equipped with a centrifugal controller, 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 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 control unit is fitted but the wheels have no sensors, a fault message is generated.

Tire inflation pressure ranges

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

– Tire pressure within the permissible tolerance
– Tire pressure within the limit range of the permissible tolerance
– Tire pressure outside of 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 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 Owner'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 OE

Shift assistant Pro

Your motorcycle is equipped with a Pro gearshift 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 gearshift lever previously not operated must be moved against the force of the spring by a certain amount of "overtravel" in the desired direction with a normal to brisk action and held in that position until the gear change is completed. A further increase of the force applied to the gearshift lever during the gear-shift operation is not necessary. After the gear change is completed, the gear lever must be fully released before the Pro gearshift assistant can execute a new gear change. The load factor (throttle grip position) should remain constant both prior to and during execution of shifts using the Pro gearshift assistant. Changing the accelerator twist-grip position during the gear-shift operation may cause the function to abort and/or the gear change to fail. The Pro gearshift assistant does not provide support when gear changes are 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. Overrevving is thus prevented.

 Maximum engine speed
max 9000 min^{-1}

Upshifts

– Upshifting is only possible if the current RPM is higher than the release threshold for the next higher gear.
– This prevents the idling speed from being dropped below.

 Idle speed
1050 min^{-1} (Engine at operating temperature)

 Release thresholds
1st gear
min 1350 min^{-1}
2nd gear
min 1400 min^{-1}
3rd gear
min 1450 min^{-1}
4th gear

 Release thresholds
min 1500 min^{-1}
5th gear
min 1550 min^{-1}
6th gear
min 1600 min^{-1}

Hill Start Control

Hill Start Control function

The Hill Start Control 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 Hill Start Control is activated, pressure builds in the rear brake system so that the motorcycle remains stationary on a sloping surface.

The brake pressure in the brake system depends on the gradient.

Influence of gradient on brake pressure and starting behavior

- Stopping on a slight incline builds up only a small amount of brake pressure. The brake is released quickly when riding off, making it possible to ride off more smoothly. Additional turning of the throttle grip is hardly necessary.
- Stopping on a steeper slope increases the amount of brake pressure built up. The brake is a bit slower to release when riding off. More torque is required to ride off, making additional turning of the throttle grip necessary.

Behavior when the vehicle is rolling or slipping

- The brake pressure increases if the vehicle is rolling with Hill Start Control active.
- If the rear wheel skids, the brake is released again after approx. 3.3 ft (1 m). This prevents the vehicle from slipping with a locked rear wheel, for example.

Releasing the brake when switching off the engine or during timeout

Hill Start Control is deactivated when the engine is switched off using the emergency-off switch, when the side stand is folded out, or after it times out (10 minutes).

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 is immediately reactivated.
- This causes a jerking behavior that the rider can feel.
- The partial integral ABS brake system sets a speed of approx. 0.6-1.2 mph (1-2 km/h).
- The rider must brake the vehicle manually.
- After two minutes, or when the brake is applied, Hill Start Control is deactivated completely.

NOTICE

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

ShiftCam

Principle of ShiftCam function

The motorcycle is equipped with the BMW ShiftCam technology - a technique for varying the valve timing and the valve stroke on the intake side. The centerpiece of this technology is a one-piece intake trip camshaft that has two cams per valve to be actuated: one for partial load and one for full load. The partial load cam has been developed with regard to fuel economy optimization and smooth running. The partial load cam reduces both the control timings adapted for this purpose and the intake valve stroke. Furthermore, the intake cams for the left and right intake valve differ in stroke and angle position when the partial load cam is activated. This causes a staggered opening of the two intake valves, which have different widths. The advantage is that the fuel-air mixture flowing into the combustion chamber is more strongly swirled and more effectively burned. Overall, this results in optimal fuel efficiency and noticeably improves the smoothness of running. The full load cam is optimized for performance and releases the maximum intake valve stroke. In order to vary the valve timing and the valve stroke, the intake camshaft is shifted axially. For this purpose, the pins of an electromechanical actuator mesh with a shift gate on the intake camshaft. This allows for the actuation of the intake valves depending on load and motor speed and, as a result, an uncompromising symbiosis of performance and low fuel consumption.

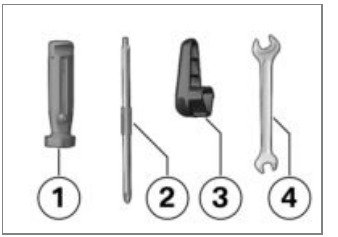
Maintenance

General instructions

The "Maintenance" chapter describes work involving the checking and replacement of wear parts that can be performed with a minimum of effort.
If special tightening torques are to be taken into account for assembly, these are listed. An overview of all required tightening torques is contained in the chapter "Technical Data".
Further information about maintenance and repair work can be obtained on DVD through your authorized BMW Motorrad retailer.

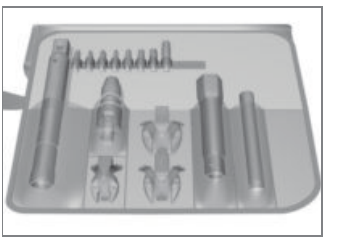
Special tools and thorough specialized knowledge are required to carry out some of the work. If you are in doubt, consult an authorized workshop, preferably your authorized BMW Motorrad retailer.

Standard tool kit



1 Screwdriver handle
2 Reversible screwdriver insert
Phillips PH1 and Torx T25
– Removing rider`s seat (➠ 83).
– Removing and installing body panels.
3 Tool for oil cap
– Topping up the engine oil (➠ 165).
– Remove passenger seat (➠ 85).
– Install passenger seat (➠ 86).
4 Open-ended wrench
Key range: 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

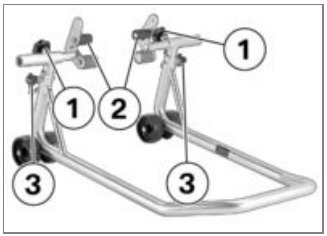
Attaching front-wheel stand

ATTENTION

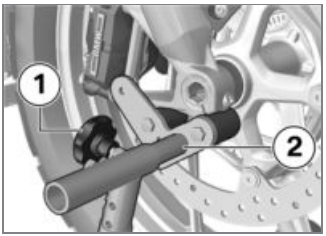
Use of BMW Motorrad front wheel stand without additional center or auxiliary stand

Component damage cause by tipping over

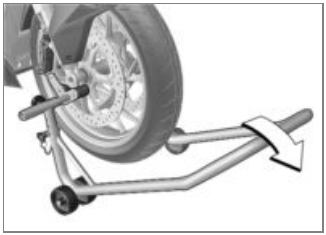
- Place the motorcycle on a center or auxiliary stand before lifting the front wheel with the BMW Motorrad front-wheel stand.◀
- Make sure the ground is level and firm and place the motorcycle on its center stand.
- Use basic stand with front wheel mount. The basic stand and its accessories are available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



- Loosen mounting bolt **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 the front-wheel stand relative to the front wheel and push it against the front axle.



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



ATTENTION

Lifting off the center stand if the motorcycle is raised too high

Component damage cause by tipping over

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

Engine oil

Checking engine oil level

NOTICE

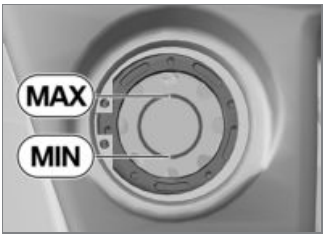
It is possible to misinterpret the oil capacity as the oil level depends on the temperature.◀

- Make sure ground is level and firm and place the motorcycle on its center stand with the engine at operating temperature.
- Run the engine at idle until the fan starts.
- Switch off engine at operating temperature.
- Wait five minutes to allow oil to drain into the oil pan.

NOTICE

BMW Motorrad recommends occasionally checking the motor oil after a journey of at least 50 km in order to reduce the environmental impact.◀

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



Specified level of engine oil	
Between MIN and MAX mark	

If oil level is below minimum mark:

- Topping up the engine oil (➠ 165).

If oil level is above maximum mark:

- Have oil level corrected at a specialist workshop, preferably an authorized BMW Motorrad retailer.

Topping up the engine oil

- Park motorcycle on a level, firm surface.

- Wipe the area around the oil filler opening clean.
- Remove the cap **2** on the oil filler opening with the oil cover tool **1**.
- Hold the oil cover tool **1** against the oil filler opening **2** and remove by turning counterclockwise.

ATTENTION

Use of too little or too much engine oil

Engine damage

- Always make sure that the oil level is correct.◀

- Top up the engine oil to the specified level.

Engine oil, quantity for topping up
max 0.8 quarts (max 0.8 l) (Difference between MIN and MAX)

- Checking engine oil level (➠ 164).
- Install the cap **2** of the oil filler opening.

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

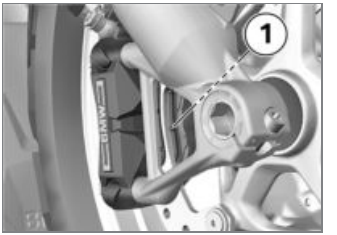
Improper working on the brake system

Endangering of the operating safety of the brake system

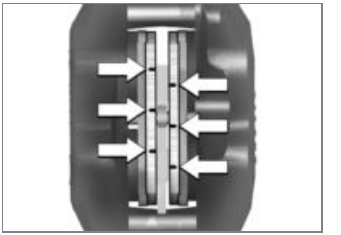
- Have all work on the brake system carried out by experts.◀
- Have the brakes checked at an authorized workshop, preferably an authorized BMW Motorrad retailer.

Checking the front brake pad thickness

- Park motorcycle on a level, firm surface.



- 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

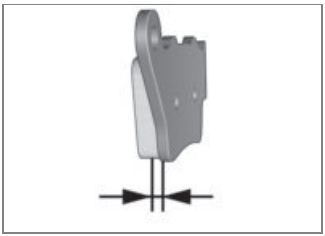
Reduced braking action, damage to the brake

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

Checking the rear brake pad thickness

- Park motorcycle on a level, firm surface.

- Conduct a visual inspection of the brake pad thickness. Direction of view: from rear, looking at 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 brake pads replaced at an authorized service facility, preferably an authorized BMW Motorrad retailer.

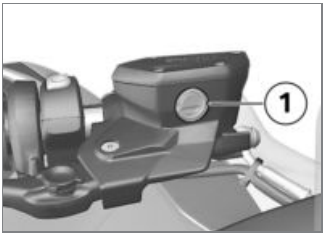
Checking the front brake fluid level

WARNING

Insufficient or contaminated brake fluid in the brake fluid reservoir

Considerably reduced braking power caused by air, dirt or water in the brake system

- Stop riding immediately until fault is rectified.
- Check brake fluid level regularly.
- Make sure that the lid of the brake fluid reservoir is cleaned before opening.
- Make sure that brake fluid is used from a sealed container only.◀
- Make sure ground is level and firm and place the motorcycle on its center stand.
- Move handlebars to straight-ahead position.



- Check brake fluid level at brake fluid reservoir for front wheel brake **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 the brake fluid level falls below the approved level:

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

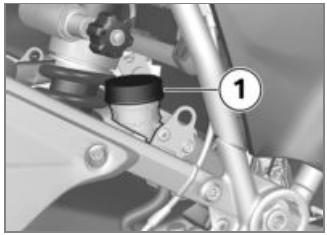
Checking the rear brake fluid level

WARNING

Insufficient or contaminated brake fluid in the brake fluid reservoir

Considerably reduced braking power caused by air, dirt or water in the brake system

- Stop riding immediately until fault is rectified.
- Check brake fluid level regularly.
- Make sure that the lid of the brake fluid reservoir is cleaned before opening.
- Make sure that brake fluid is used from a sealed container only.◀
- Make sure ground is level and firm and place the motorcycle on its center stand.



- Check brake fluid level at brake fluid reservoir for rear wheel brake **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 the brake fluid level falls below the approved level:

- Have the defect rectified as quickly as possible by a specialist 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

Checking coolant level

- Park motorcycle on a level, firm surface.
- Let the engine cool down.

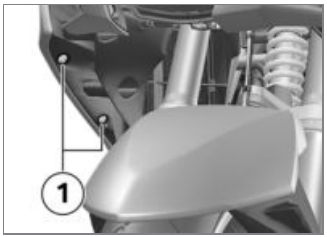
- Read the coolant level on the expansion tank **1**.

	Required coolant level
Between MIN and MAX marks on the expansion tank (Engine cold)	

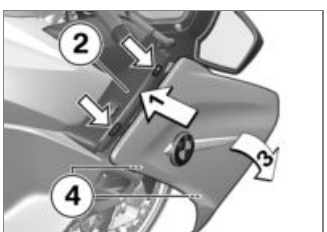
If coolant level drops below approved level:

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

Topping up coolant



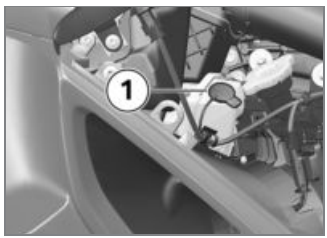
- Remove screws **1**.



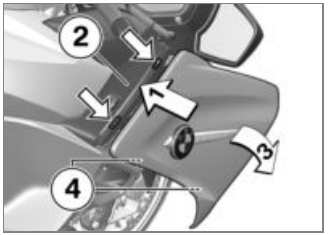
- Pull the front side trim panel **3** outward.

» Lugs **4** are pulled out of grommets.

- Pull the side trim panel **1** upward out of the side section **2** and remove, thereby paying attention to the lugs (**Arrow**).

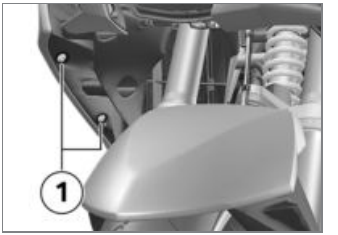


- Open cap **1** of coolant expansion tank and add coolant up to specified level.
- Checking coolant level (⇒ 170).
- Close cap of coolant expansion tank.



- 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**.

Tires

Checking tire 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. Ensure that the ground is firm and level.

NOTICE

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

- Check tire pressure against data below.

 Front tire pressure
36.3 psi (2.5 bar) (with tire cold)

 Rear tire pressure
42.1 psi (2.9 bar) (with tire cold)

If tire pressure is too low:
- Correct tire pressure.

Wheel rims and tires

Check wheel rims

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

Checking tire tread depth

WARNING

Riding with heavily worn tyres
Risk of accident due to poorer rideability
- If necessary, replace the tyres before the legally specified minimum tread depth is reached.◀
- Make sure ground is level and firm and park motorcycle.
- Check tire tread depth in main tread grooves with wear indicators.

NOTICE

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

When the minimum tread depth is reached:
- Replace the worn tires.

Wheels

Tyre recommendation

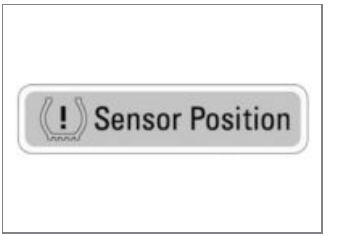
For every size of tyre, BMW Motorrad has tested and approved certain makes as roadworthy. BMW Motorrad cannot evaluate the suitability of other tyres, and can therefore take no responsibility for their driving safety.
BMW Motorrad recommends only using the tyres tested and approved by BMW Motorrad. Detailed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

TPC label

– with tire pressure monitor (TPM)[OE]



ATTENTION

Improper tire removal

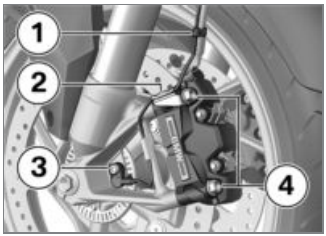
Damage to the TPC/TPC sensors

- 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 sensor. During a tire change, ensure that the TPC sensor is not damaged. Inform the BMW Motorrad partner or the specialist workshop about the TPC sensor.

Remove front wheel

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



- Remove wheel speed sensor cable from the holding clips **1** and **2**.
- Remove the screw **3** and take the wheel speed sensor out of the bore hole.
- Mask off areas of wheel rim that could be scratched in the process of removing the brake calipers.

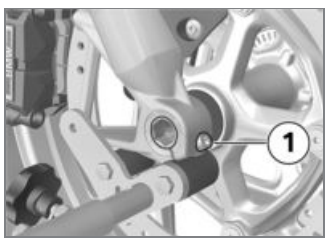
ATTENTION

Unintentional pressing together of brake pads

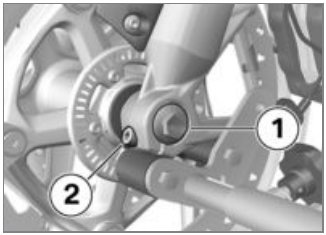
Component damage when mounting the brake caliper or when pressing the brake pads apart

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

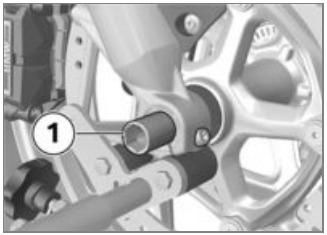
- Push brake pads **1** apart slightly by turning the brake caliper **2** back and forth against brake disc **3**.
- Carefully pull the brake calipers back and outward to remove them from the brake discs.
- Raise front of motorcycle, preferably using a BMW Motorrad front wheel stand, continuing until the wheel rotates freely.
- Installing front-wheel stand (➠ 163).



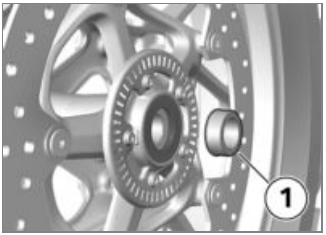
- Release the right axle clamping screw **1**.



- Remove screw **1**.
- Release the left axle clamping screw **2**.
- Slightly press the quick-release axle inward for a better grip on the right side.



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



- Remove the 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.◀

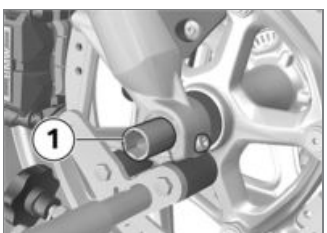
- Insert the spacing bushing **1** on the left side in wheel hub.

ATTENTION

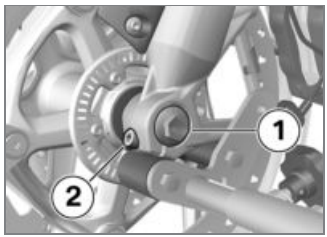
Front wheel installation opposite the running direction

Accident hazard

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



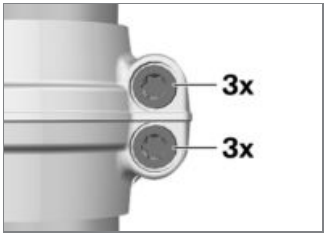
- Lift front wheel and install quick-release axle **1**.
- Remove front wheel stand and firmly compress front forks. Do not actuate handbrake lever at the same time.
- Installing front-wheel stand (163).



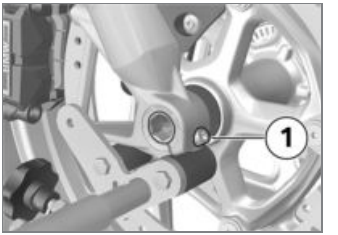
- Install screw **1** with specified torque. Brace quick-release axle on the right side at the same time.

Quick-release axle in telescopic fork
22 lb/ft (30 Nm)

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



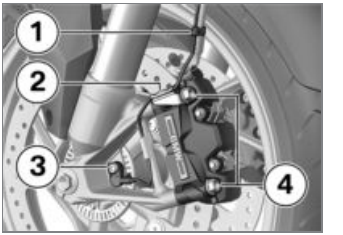
Fork bridge, bottom at slider tube
Tightening sequence: Tighten the screws 6 times, alternating between one and the other each time
14 lb/ft (19 Nm)



- Tighten right-hand axle clamping screw **1** with appropriate 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-had side onto the brake rotors.



- Install mounting bolts **4** on left and right with appropriate torque.

Radial brake calipers on telescopic forks
28 lb/ft (38 Nm)

- Remove adhesive tape from wheel rim.

WARNING

Brake pads do not contact the brake disc

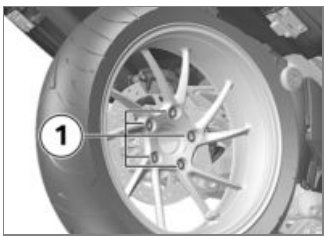
Risk of accident due to delayed braking effect.

- 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.
- Insert ABS sensor line into the holding clips **1** and **2**.
- Insert ABS sensor into the bore and install screw **3**.

Wheel speed sensor on fork
Joint compound: Micro-encapsulated or medium-strength screw lock
6 lb/ft (8 Nm)

Remove rear wheel

- Swiveling out the silencer (➠ 180).



- Shift into first gear.
- Remove bolts **1** of rear wheel, holding wheel as you do so.
- Roll rear wheel out toward rear.

Installing the 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

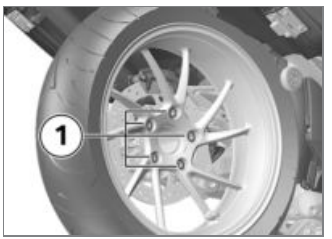
- Always have the tightening torques checked by a specialized workshop, preferably an authorized BMW Motorrad retailer.◀

ATTENTION

Rear wheel installation counter to running direction

Risk of accident

- Observe running direction arrow on tire or rim.◀
- 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 (➠ 181).

Muffler

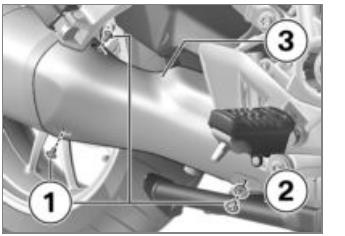
Swiveling out the muffler

⚠ CAUTION

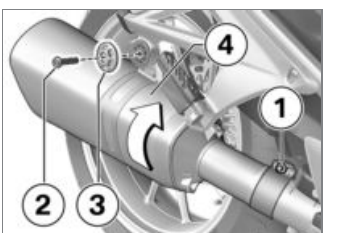
Hot exhaust system

Burn hazard

- Do not touch hot exhaust system.◀
- Park motorcycle on the center stand. Ensure that the ground is firm and level.
- Allow the silencer to cool down.



- Remove the screws **1** from the front with the washers **2**.
- Remove muffler cover **3**.



- Loosen the screw **1** from the clamp.

- Remove screw **2** and lock washer **3**.
- Turn silencer **4 clockwise** outward.

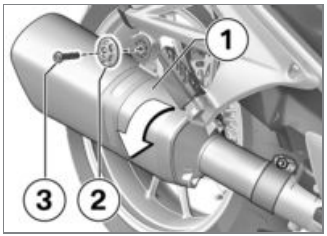
Mounting muffler

ATTENTION

Tightening of screwed connections with incorrect tightening torque

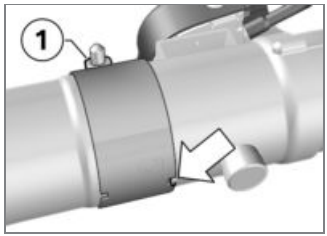
Damage or loosening of screwed connections

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



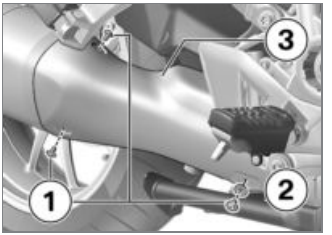
- Turn muffler **1** counterclockwise until it rests on passenger footpeg bracket.
- Install washer **2** and screw **3**.

Muffler on rear frame
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**.

Light sources

Replacing low-beam light source in headlight

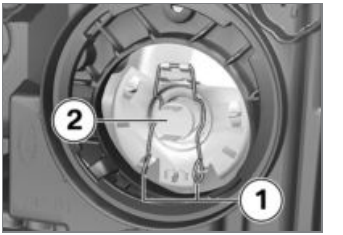
NOTICE

The alignment of the connectors and light sources may deviate from 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.

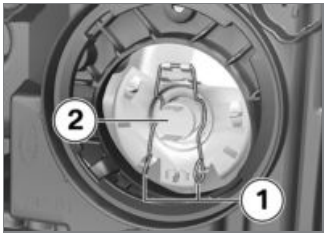
- Disconnect plug **1**.



- 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**.

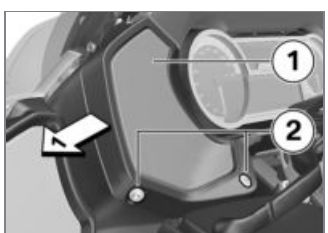
- Place cap **1** in position and fix by turning it clockwise.

Replacing high-beam headlight light source

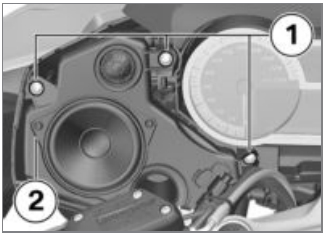
NOTICE

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.

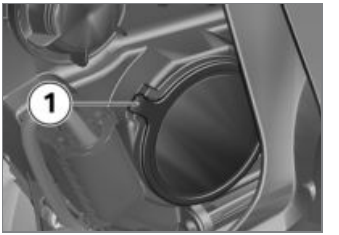


- Remove screws **2**.
- Remove speaker cover **1** sideways to the left.



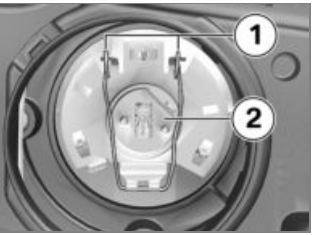
- Remove screws **1**.
- Carefully remove speaker unit **2**, paying attention to the electrical connector.

- Disconnect plug connection **1**.



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

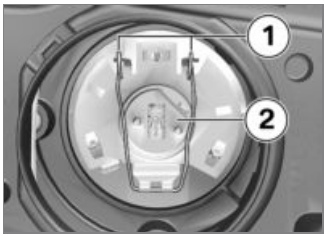
- Disconnect plug **1**.



- 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.

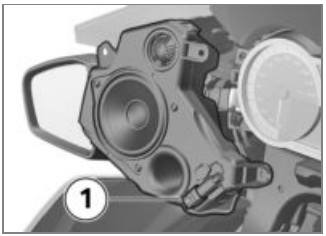
NOTICE

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

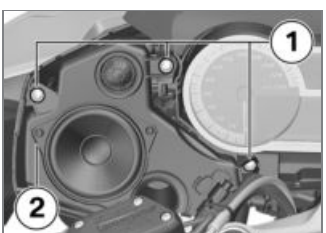
- Fit wire spring **1**.

- Connect connector **1**.

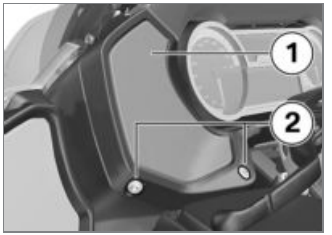
- Install cover **1**.



- Connect electrical connector **1**.



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



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

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 purpose, preferably an authorized BMW Motorrad retailer.

Replacing LED auxiliary headlights

– with additional headlight OE

The LED auxiliary headlights can only be replaced in full. It is not possible to replace individual LEDs.
Please contact a specialist service facility, 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

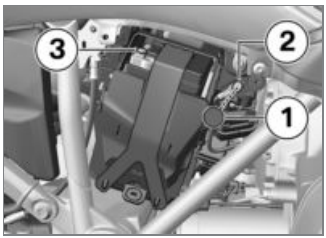
- Use jump leads fitted with fully insulated crocodile clips at both ends.◀

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 (➠ 189).
- 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 (➠ 191).

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

A fully discharged battery must be charged via a power socket or extra socket.

Damage to vehicle electronics

- A fully discharged battery (battery voltage less than 12 V, indicator lights and multifunction display remain off when ignition is switched on) must always be charged 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.◀

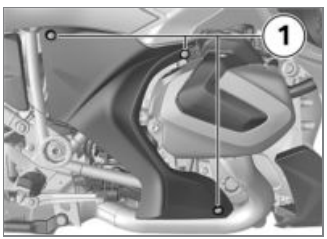
Charging disconnected battery

- 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.◀

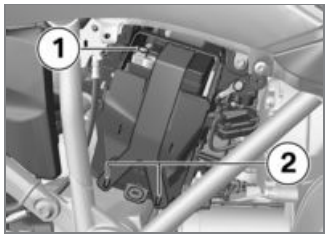
Removing battery



- Switch off ignition.
- Remove screws **1**.
- Remove the battery cover.

– with anti-theft alarm system (DWA) OE

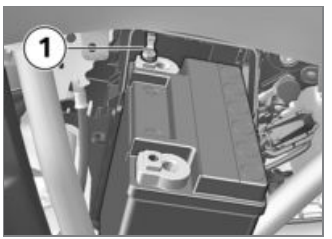
- Switch off DWA if necessary.◁



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

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

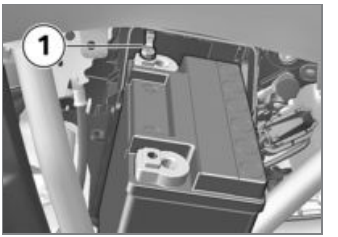
- Lift battery slightly out of holder sufficiently for positive terminal to be accessible.



- Remove positive battery cable **1** and pull out battery.

» The battery has been removed.

Install battery

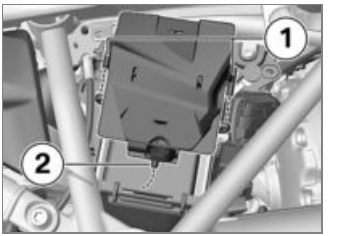


- Fasten positive battery cable **1**.

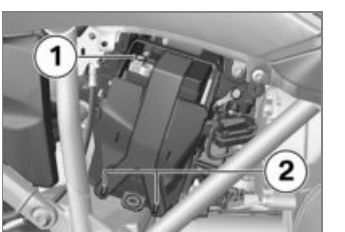
NOTICE

If the 12-V battery is inserted incorrectly or the terminals reversed (e.g. when jump starting), it can blow the fuse for the alternator regulator.◀

- Slide battery into holder.

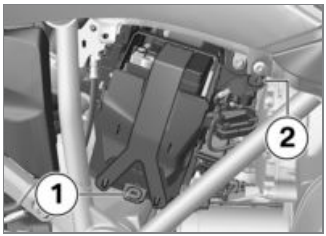


- First press retaining plate under the battery at point **2** and then locate it in the mounts **1**.

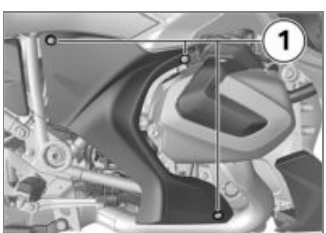


- Fasten negative battery cable **1**.

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



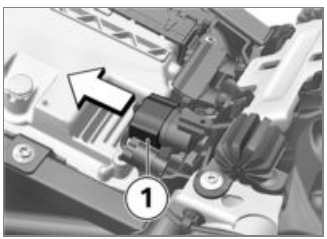
- Insert battery cover into mount **1**, and press it into mounts **1** and **2**.



- Install screws **1**.
- Switch on the ignition.
- Set the time in `Settings - Clock` and set the date in `Settings - Date`.

Fuses

Replacing fuses



- Switch off ignition.
- Removing rider`s seat (➠ 83).
- Detach plug **1**.

ATTENTION

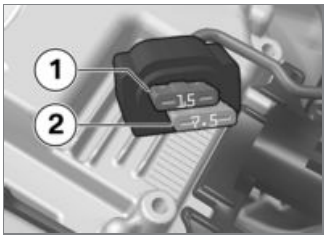
Bypassing defective fuses
Risk of short circuit and fire
- Do not bypass defective fuses.
- Replace defective fuses with new fuses.◀
- Replace faulty fuse according to assignment plan.

NOTICE

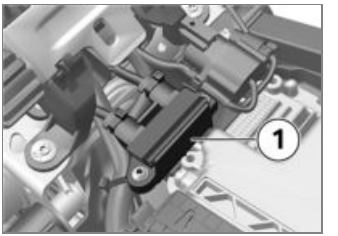
If the fuses blow frequently, have the electrical system checked by an authorized specialized workshop, preferably an authorized BMW Motorrad retailer.◀

- Insert connector **1**.
- Installing driver's seat (➠ 84).

Fuse assignments



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)

Data link connector

Removing the diagnostic connector

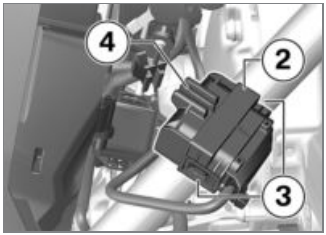
CAUTION

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 (➠ 189).

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

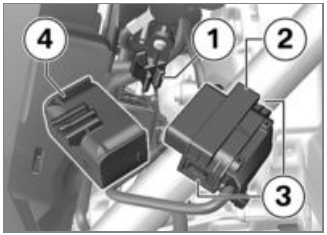


- Press locks **3** on both sides.
- Remove diagnostic connector **2** from bracket **4**.

» The diagnosis and information system interface can be connected 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 (191).

Accessories

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 thoroughly checked by BMW. Therefore, BMW assumes responsibility for these products. BMW will not be held liable for unapproved parts and accessory products of any kind.

Comply with legal requirements for any modifications. The motorcycle must not violate the regulations governing motorcycle approval for highway use applicable in your own country.

Your BMW Motorrad retailer offers you expert advice when choosing genuine BMW parts, accessories and other products.

More information on the topic of accessories is available at:

bmw-motorrad.com/equipment

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

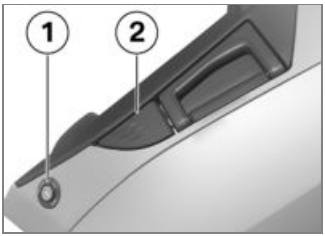
– In case of insufficient battery voltage, the onboard sockets are switched off to maintain the ability to start the motorcycle.
– If the maximum loadability specified in the technical data is exceeded, the onboard sockets are switched off.

Case

Open case

– with central locking system OE
• 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

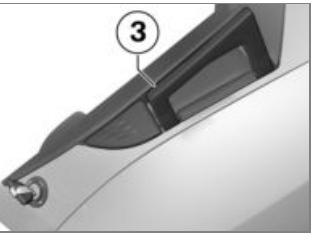
The case can also be locked if the lock is in the LOCK position. Under such circumstances, ensure that the ignition key is not in the case.◀

- 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.
The following values apply for 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 OA

– with central locking system OE

- 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 OA

- 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

You can also lock the topcase by turning the lock to the LOCK position. Under such circumstances, ensure that the key is not in the topcase.◀

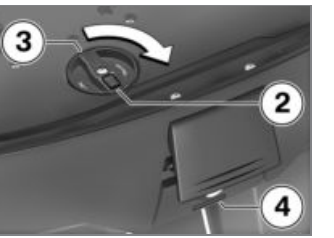
- Push release lever **2** down, continuing until it engages.
- Turn key in topcase lock to the LOCK position and remove.

Remove topcase

- Removing rider`s seat (➠ 83).
- Remove passenger seat (➠ 85).

– with topcase OA

- 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 passenger seat (➠ 86).
- Installing driver's seat (➠ 84).

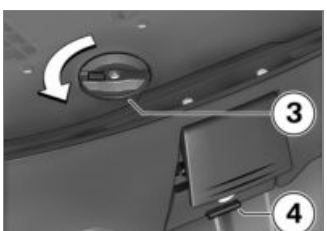
Mounting topcase

- Removing rider`s seat (➠ 83).
- Remove passenger seat (➠ 85).

– with topcase[OA]

- If applicable, empty the topcase and lift out the bottom mat.

- Set the topcase on the luggage carrier.
- Opening topcase (➠ 199).

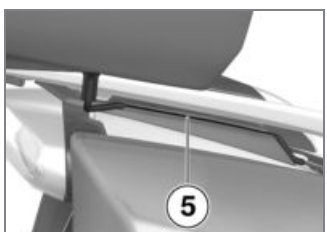


- Turn rotary fastener **3** as far as it will go in the direction indicated by the LOCK arrow while pressing down on the back edge of the topcase.

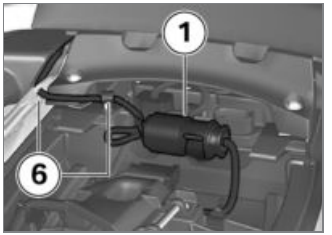
» Release warning **4** is no longer visible.

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 passenger seat (➠ 86).
- Installing driver's seat (➠ 84).

Maximum payload and maximum speed

– with topcase OA

Observe maximum payload and maximum speed.
The following values apply for 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 OA
– with preparation for navigation system OE

ATTENTION

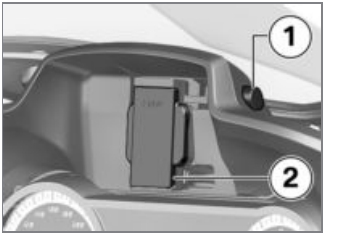
Dust and dirt on the contacts of the Mount Cradle

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 OA
– with preparation for navigation system OE

- Actuate the lock **1** and remove the navigation device **2**.

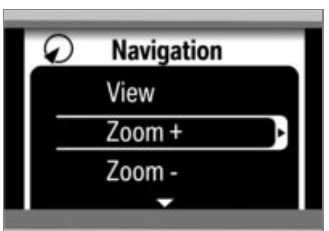
- Install cover **2**.
- Check that the cover is secure in the cradle. The upper retain-

ing cap **1** must be completely engaged.

Operating the navigation system

– with preparation for navigation system OE

- Switch on ignition if necessary.
- Call up the Navigation menu.



The options for using the navigation system appear on the display.

– View: You can change between the main menu, map, and on-board computer views.
– Zoom +: Performs functions marked with a + sign in the navigation system. In the map view, for instance, the view zooms in on the map detail.
– Zoom –: Performs functions marked with a - sign in the navigation system. In the map view, for instance, the view zooms out from the map detail.
– Speak: The last navigation message is repeated. The announcement is spoken again even if automatic spoken announcements have been turned off in the settings of the navigation system.
– Mute: Automatic spoken messages are turned 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 OE

Due to integration of the BMW Motorrad Navigators, there may be differences from the descriptions in the operating instructions for the Navigator.

Reserve fuel level warning

A distance can be defined in the fuel gauge settings for the distance covered on a full tank of fuel. Since the motorcycle transmits the remaining travel range with the current fuel level to the Navigator, manual entry of this value is no longer necessary.

Time and date

The Navigator 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). If this function is activated, while the Navigator is cradled on the motorcycle and the ignition is switched on you are prompted to add the motorcycle to the list of secured 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 not be required when this Navigator GPS unit is activated by turning on the ignition switch in any of these vehicles.

If the Navigator is removed from the motorcycle while switched on, a security prompt asking for the PIN to be entered is issued.

Care

Care products

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

ATTENTION

Use of highly acidic or alkaline cleaning agents

Damage to motorcycle parts

- Observe the dilution ratio on the packaging of the cleaning agents.
- Do not use highly acidic or alkaline cleaning agents.◀

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 motorcycle, after riding through water or in the rain

Poorer braking action, accident hazard

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

ATTENTION

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

ATTENTION

Use of unsuitable cleaning agents

Damage to plastic surfaces

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

Fairings and panels

Clean trim panel components with water and BMW Motorrad solvent cleaner.

Windshields and lenses are manufactured in plastic

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

NOTICE

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

Clean with water and sponge only.

Do not use chemical cleansers.

Chrome

Carefully clean chrome parts with plenty of water and BMW Motorrad Care Products motorcycle cleaner. This is particularly important in the case of road salt.

Use BMW Motorrad metal polish for additional treatment.

Radiator

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

ATTENTION

Bending of radiator fins

Damage to radiator fins

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

Rubber parts

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

ATTENTION

Use of silicone sprays for care of rubber seals

Damage to rubber seals

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

Paint care

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

At the same time, you should remove particularly aggressive materials immediately; otherwise changes in the paint and discoloration can occur. These include spilled fuel, oil, grease and brake fluid as well as bird droppings. It is recommended to use BMW Motorrad solvent cleaner and then apply BMW Motorrad high gloss polish to preserve the paint.

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

Protective wax coating

Apply a preservative when water fails to bead up on the painted surface.

BMW Motorrad recommends BMW Motorrad high gloss polish or agents that contain carnauba or synthetic wax to protect the paint finish.

Store motorcycle

- Clean motorcycle.
- Completely fill the motorcycle's fuel tank.
- Removing battery (➠ 189).
- Spray brake lever and clutch lever as well as center stand pivot 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).

Taking the motorcycle into operation

- Remove the protective wax coating.
- Clean motorcycle.
- Install battery (➠ 190).
- Observe checklist (➠ 132).

Technical data

Troubleshooting chart

Engine does not start.

Possible cause	Remedy
Side stand extended and gear engaged	Retract side stand.
Gear engaged and clutch not disengaged	Place transmission in neutral or disengage clutch.
No fuel in tank	Refueling procedure (➠ 141).
Battery drained	Charge connected battery (➠ 188).
Overheating protection for starter motor has activated. Starter motor can only be actuated for a limited period.	Leave the starter motor to cool down for around 1 minute until it becomes available again.

Screw connections

Front wheel	Value	Valid
Radial brake calipers on telescopic forks		
M10 x 65	28 lb/ft (38 Nm)	
Fork bridge, bottom at slider tube		
M8 x 35	**Tightening sequence: Tighten the screws 6 times, alternating between one and the other each time**	
	14 lb/ft (19 Nm)	
Wheel speed sensor on fork		
M6 x 16 Micro-encapsulated or medium-strength screw lock	6 lb/ft (8 Nm)	
Quick-release axle in telescopic fork		
M12 x 20	22 lb/ft (30 Nm)	

Rear wheel	Value	Valid
Tighten rear wheel on wheel flange		
M10 x 1.25 x 40	**Tightening sequence: Tighten cross-wise**	
	44 lb/ft (60 Nm)	

Exhaust system	Value	Valid
Muffler on rear frame		
M8 x 35	14 lb/ft (19 Nm)	
Clamp on muffler and exhaust manifold		
	16 lb/ft (22 Nm)	

Mirror arm	Value	Valid
Mirror on bracket		
M6 x 50	6 lb/ft (8 Nm)	

Fuel

Recommended fuel quality	Premium unleaded (max. 15 % ethanol, E15) min 89 AKI (min 95 ROZ/RON) 90 AKI
Alternative fuel quality	Regular unleaded (restrictions with regard to power and fuel consumption) (max. 15 % ethanol, E15) min 87 AKI (min 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)
Fuel consumption	50 mpg (4.75 l/100 km), according to WMTC
CO2 emissions	110 g/km, according to WMTC
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 0.8 quarts (max 0.8 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	A74B12M
Engine design	Air-cooled/liquid-cooled two-cylinder four-stroke opposed-twin engine with two overhead, spur-gear-driven camshafts, a counterbalance shaft, and variable intake camshaft control BMW Shift-Cam
Displacement	1254 cc (1254 cm^3)
Cylinder bore	4 in (102.5 mm)

Piston stroke	3 in (76 mm)
Compression ratio	12.5:1
Nominal capacity	136 hp (100 kW), at engine speed: 7750 min^{-1}
Torque	105 lb/ft (143 Nm), at engine speed: 6250 min^{-1}
Maximum engine speed	max 9000 min^{-1}
Idle speed	1050 min^{-1}, Engine at operating temperature

Clutch

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

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-wheel guide	Cast-aluminum single swing arm with BMW Motorrad Paralever
Gear ratio of rear-wheel drive	2.75 (33/12 teeth)
Rear axle differential oil	SAE 70W-80 / hypoid axle G3

Frame

Frame design	Steel-tube frame with partially self-supporting drive unit, steel-tube 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

Front wheel	
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 OE	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

Rear wheel	
Type of rear-wheel guide	Cast-aluminum single swing arm with BMW Motorrad Paralever
Design of rear-wheel suspension	Central spring strut with coil spring, adjustable rebound-stage damping and spring preload
– with Dynamic ESA OE	ESA-2 with spring rate adjustment
Spring travel on the rear wheel	5.4 in (136 mm)

Brakes

Front wheel	
Type of front wheel brake	Hydraulically operated twin disk brake with 4-piston radial calipers and floating brake disks
Front brake pad material	Sintered metal
Front brake disc 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 wheel brake	Hydraulically operated disk brake with 2-piston floating caliper and fixed brake disk
Rear brake pad material	Sintered metal
Rear brake disc thickness	min 0.18 in (min 4.5 mm), Wear limit
Blow-by clearance of footbrake lever	0.04...0.06 in (1...1.5 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 bmw-motorrad.com.
Speed category of front/rear tires	W, minimum requirement: 168 mph (270 km/h)
Front wheel	
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
Permissible front wheel load	max 463 lbs (max 210 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
Permissible rear wheel load	max 728 lbs (max 330 kg)
Permissible rear-wheel imbalance	max 1.6 oz (max 45 g)
Tire inflation pressures	
Front tire pressure	36.3 psi (2.5 bar), with tire cold
Rear tire pressure	42.1 psi (2.9 bar), with tire cold

Electrical system

Electrical rating of onboard sockets	max 5 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 LMAR8AI-10

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	LED ring light
Bulb for taillight/brake light	LED
Bulbs for flashing turn indicators	LED
Bulbs for flashing turn indicators, rear	LED

Anti-theft 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), over number-plate carrier
Motorcycle height	55.3...61.8 in (1405...1570 mm), over windshield, at DIN unloaded vehicle weight
Motorcycle width	38.8 in (985 mm), with mirrors 39 in (990 mm), with cases
Front-seat height	31.7...32.5 in (805...825 mm), without rider at unladen weight
– with rider's seat, low[OE]	29.9...30.7 in (760...780 mm), without rider at unladen weight
– with rider's seat, high[OE]	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 DIN unloaded vehicle weight
– with rider's seat, low[OE]	68.5...70.1 in (1740...1780 mm), without rider, at DIN unloaded vehicle weight
– with rider's seat, high[OE]	73.8...75.4 in (1875...1915 mm), without rider, at DIN unloaded vehicle weight

Weights

Unloaded vehicle weight	615 lbs (279 kg), DIN unladen weight, ready for road, 90 % full tank of gas, without OE
Gross vehicle weight	1113 lbs (505 kg)
Maximum payload	498 lbs (226 kg)
Payload per case	max 22 lbs (max 10 kg)
Payload of Topcase	max 11 lbs (max 5 kg)

Performance data

Maximum 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)

Radio

Reception ranges	FM, AM and WB
Wavebands	
FM	87.7...107.9 MHz
AM	530...1710 MHz
Station memory	Twelve system memory slots and twelve personal memory slots for each waveband

MP3

MP3 standard	MPEG1 Layer 3
Sampling rate	32 / 44.1 / 48 kHz
Bitrates	32, 40, 48, 56, 64, 80, 96, 112, 128, 160, 192, 224, 256, 320 kbit/s

Bluetooth

Frequency range	2.402...2.480 kHz
Unsupported standards	1.2 and 2.0
Profiles	A2DP, SPP

External audio devices

Connector	0.14 in (3.5 mm), Jack plug
Input signal range	0...1 V, effective

Loudspeaker

Impedance	4 Ω
Output power	15 W, RMS, per speaker unit
Frequency range	2.402...2.480 kHz

Service

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 Electronic Service Manual

Entries

Maintenance work that has been performed is recorded in the diagnostics and information system. Like a Service Booklet, these entries provide proof of regular maintenance.

If an entry is made in the vehicle's electronic Service Manual, service-related data is stored on the central IT systems of BMW in Munich, Germany.

When there is a change in vehicle owner, the data entered in the electronic Service Manual can also be viewed by the new vehicle owner. A BMW Motorrad retailer or specialist workshop can view the data entered in the electronic Service Manual.

Objection

At the BMW Motorrad retailer or specialist workshop, the vehicle owner can object to the entry of data in the electronic Service Manual with the related storage of data in the vehicle and the transfer of data to the vehicle manufacturer during his time as the vehicle owner. In this case, no entry is made in the vehicle's electronic Service Manual.

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 310 mls (500 km) and 746 mls (1200 km).

BMW Service

BMW Service is carried out once a year. The scope of the services performed may be dependent on the motorcycle owner and the mileage driven. Your BMW Motorrad retailer confirms that the service has been performed and enters the date for the next service.
For riders who drive long distances annually, it may be necessary to come in for service before the entered date. In this case a corresponding maximum odometer reading will also be entered in the confirmation of service. If this odometer reading is reached before the next service date, service must be performed sooner.
The service display in the multifunction display reminds you of the next service date approx. one month or 620 mls (1000 km) before the entered values.

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

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

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

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 miles (10000 km) (whichever comes first)
b annually or every 12000 miles (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 vehicle test using the BMW Motorrad diagnostic system
- Visual inspection of the clutch system
- Visual inspection of the brake lines, brake hoses, and connections
- Checking the front brake pads and brake discs for wear
- Checking the front wheel brake fluid level
- Checking the rear brake pads and brake disc for wear
- Checking the rear wheel brake fluid level
- Checking coolant level
- Check side stand for ease of movement
- Checking center stand for ease of movement
- Checking the tire pressure and tread depth
- Checking the lighting and signal system
- Functional check for engine starting suppression
- Final inspection and road safety check
- Set the service date and remaining distance using the BMW Motorrad diagnostic system
- 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_____

Odometer reading_____

Next service

latest

on_____

or, if reached earlier

Odometer reading_____

Stamp, signature

BMW Service
performed

on_____
Odometer reading_____

Next service
latest
on_____
or, if reached earlier
Odometer reading_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Engine oil change with filter	☐	☐
Oil change in rear bevel gears	☐	☐
Checking valve clearance	☐	☐
Replacing all spark plugs	☐	☐
Replacing air cleaner element	☐	☐
Checking or replacing air cleaner element (maintenance)	☐	☐
Changing brake fluid in entire system	☐	☐

Information

BMW Service
performed

on_____
Odometer reading_____

Next service
latest
on_____
or, if reached earlier
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_____
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Oil change in rear bevel gears	☐	☐
Checking valve clearance	☐	☐
Replacing all spark plugs	☐	☐
Replacing air cleaner element	☐	☐
Checking or replacing air cleaner element (maintenance)	☐	☐
Changing brake fluid in entire system	☐	☐

Information

Service confirmations

The table serves to provide evidence of maintenance and repair work, as well as installed optional accessories and special campaigns performed.

Work performed	Odometer reading	Date

Work performed	Odometer reading	Date

Appendix

FCC Approval

Ring aerial in the ignition switch

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

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

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

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

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

Approbation de la FCC

Antenne annulaire présente dans le commutateur d'allumage

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

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

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

Certifications

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

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/EK 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 alapvetõ követelményeknek és az 1999/5/EC irányelv egyéb elõírásainak.

Polski
Niniejszym Meta System S.p.A. oświadcza, że PF240009 jest zgodny z zasadniczymi wymogami oraz pozostałymi stosownymi postanowieniami Dyrektywy 1999/5/EC.

Português
Meta System S.p.A. declara que este PF240009 está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.

Certifications

Slovensko
Meta System S.p.A. izjavlja, da je ta PF240009 v skladu z bistvenimi zahtevami in ostalimi relevantnimi določili direktive 1999/5/ES.

Slovensky
Meta System S.p.A. týmto vyhlasuje, že PF240009 spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 1999/5/ES.

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.

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.

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.

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

R&TTE Declaration Of Conformity (DoC)

CE 0470

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

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)

camplies 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 tobe used in the 25 MHz to 1000 MHz frequency range with power leveis ranging up to 500 mW; Part 1: Technical characteristics and test methods. Part 2: Harmonized EN covering essential requirements under article 3.2 ofthe R&TIE directive

The product is labeted wilh the CE marking: CE

Velbert, October 15th, 2013

Benjamin A. Müller
Product Development Systems
Car Access and Immobilization – Electronics
Huf Hülsbeck & 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 expressively approved by the party responsible for compliance could void the user's authority to operate the equipment. The term “IC:” before the radio certification number only signifies that Industry Canada technical specifications were met.

Certifications

United Arab Emirates

Product name: MCR, Model name: K48/K52/K61

TRA REGISTERED No: 0027793/10
DEALER No: 0014517/08

USA, Canada

FCC WARNING

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

NOTICE

This equipment complies with FCC/IC radiation exposure limits set forth for uncontrolled equipment and meets the FCC radio frequency (RF) Exposure Guidelines in Supplement C to OET65 and RSS-102 of the IC radio frequency (RF) Exposure rules. This equipment has very low levels of RF energy that it deemed to comply without maximum permissive exposure evaluation (MPE). But it is desirable that it should be installed and operated with at least 20cm and more between the radiator and person's body (excluding extremities: hands, wrists, feet and ankles).

Certifications

Brazil

Product name: MCR, Model name: K48/K52/K61

Este equipamento opera em caráter secundário, isto é, não tem direito a proteção contra interferência prejudicial, mesmo de estações do mesmo tipo, e não pode causar interferência a sistemas operando em caráter primário.

Mexico

COFETEL RCPALPF10-0522

Product name: MCR, Model name: K48/K52/K61

Este equipo opera a titulo secundario, consecuentemente, debe aceptar interferencias perjudiciales incluyendo equipos de la misma clase y puede no causar interferencias a sistemas operando a titulo primario.

Argentina

CNC-ID 16-8765

Malaysia

Placeholder for certification label:

Certifications

South Korea

인증번호: **N25-MRBE002A**

Name of applicant: Alpine Eletrconics Inc. Japan
Code of applicant: N25
Model name: MCR K48/K52/K61
Produced by: Alpine Electronics Manufacturing Of Europe, Ltd. Vendel Park, Budai utca 1, H-2051 Biatorbagy, Hungary

Thailand

This telecommunication equipment conforms to technical standard NTC technical.

Singapore

Complies with IDA Standard DB105286

Taiwan

第十二條

經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻
率、加大功率或變更原設計之特性及功能。

第十四條
低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即
停用，並改善至無干擾時方得繼續使用。
前項合法通信，指依電信法規定作業之無線電通信。
低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

Certifications

Serbia

China

第十三条

进口和生产厂商在其产品的说明书或使用手册中,应刊印下述有关内容：

1.标明附件中所规定的技术指标和使用范围，说明所有控制、调整及开关等使用方法：

- 使用频率：2.4 - 2.4835 GHz
- 等效全向辐射功率(EIRP)：天线增益＜10dBi：≤100 mW 或≤20 dBm
- 最大功率谱密度：
  天线增益＜10dBi时：≤20 dBm / MHz(EIRP)
- 载频容限：20 ppm
- 带外发射功率(在2.4-2.4835GHz频段以外)
  ≤-80 dBm / Hz (EIRP)
- 杂散发射(辐射)功率(对应载波±2.5倍信道带宽以外)：
  ≤-36 dBm / 100 kHz (30 - 1000 MHz)
  ≤-33 dBm / 100 kHz (2.4 - 2.4835 GHz)
  ≤-40 dBm / 1 MHz (3.4 - 3.53 GHz)
  ≤-40 dBm / 1 MHz (5.725 - 5.85 GHz)
  ≤-30 dBm / 1 MHz (其它1 - 12.75 GHz)

2.不得擅自更改发射频率、加大发射功率(包括额外加装射频功率放大器)，不得擅自外接天线或改用其它发射天线；

3.使用时不得对各种合法的无线电通信业务产生有害干；一旦发现有干扰现象时，应立即停止使用，并采取措施消除干扰后方可继续使用；

4.使用微功率无线电设备，必须忍受各种无线电业务的干扰或工业、科学及医疗应用设备的辐射干扰；

5.不得在飞机和机场附近使用。

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

Original Rider's Manual, printed in Germany.

⚠ WARNING

Harmful substances
Operating, servicing and maintaining a passenger vehicle or off-road vehicle can expose you to chemicals including engine exhaust, carbon monoxide, phthalates and lead, which are known to the State of California to be carcinogenic or detrimental to childbirth or reproduction.

- To minimize exposure, avoid breathing exhaust, do not idle the engine except as necessary, service your vehicle in a well-ventilated area and wear gloves or wash your hands frequently when servicing your vehicle.
- For more information visit: www.P65Warnings.ca.gov/passenger-vehicle◀

Important data for refueling:

Fuel	
Recommended fuel quality	Premium unleaded (max. 15 % ethanol, E15) min 89 AKI (min 95 ROZ/RON) 90 AKI
Alternative fuel quality	Regular unleaded (restrictions with regard to power and fuel consumption) (max. 15 % ethanol, E15) min 87 AKI (min 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)
Tire inflation pressures	
Front tire pressure	36.3 psi (2.5 bar), with tire cold
Rear tire pressure	42.1 psi (2.9 bar), with tire cold

You can find further information on all aspects of your vehicle at:
bmw-motorrad.com

BMW recommends ADVANTEC ORIGINAL BMW ENGINE OIL

Order No.: 01 40 1 603 437
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