BMW
MOTORRAD

RIDER'S MANUAL (US MODEL)

K 1600 Grand America

MAKE LIFE A RIDE

Vehicle data

Model

Vehicle identification number

Color number

First registration

License plate

Retailer data

Contact in Service

Ms./Mr.

Phone number

Retailer's address/Phone (company stamp)

YOUR 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 assets 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.

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.

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

BMW Motorrad.

GENERAL INSTRUCTIONS

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4 GENERAL INSTRUCTIONS

QUICK & EASY REFERENCE

Chapter 2 of these operating instructions will provide you with an initial overview of your motorcycle. All maintenance and repair procedures carried out on your motorcycle will be documented in the chapter "Service". Documentation of the maintenance work performed is a prerequisite for generous treatment of claims. If you should decide to sell your BMW at some point in the future, please remember to hand over these operating instructions; they are 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.

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

- • 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.
D-ESA	Electronic chassis and suspension adjustment.
DTC	Dynamic Traction Control.
DWA	Anti-theft alarm.
EWS	Electronic immobilizer.
TPC	Tire Pressure Control (TPC).

EQUIPMENT

When you ordered your BMW Motorrad motorcycle, you chose various items of custom equipment. 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 Institute for Standardization i.e. DIN (Deutsches Institut für Normung e. V.) 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 or requested

from your 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.

TIMELINESS OF THE STATUS OF THIS MANUAL

The high safety and quality level of BMW motorcycles are ensured 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 these operating instructions. In addition, BMW Motorrad cannot guarantee the total absence of errors. We hope you will appreciate that no claims can be recognized that are based on the data, illustrations or descriptions in this manual.

ADDITIONAL SOURCES OF INFORMATION

Authorized BMW Motorrad retailer

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

Internet

The rider's manual for your vehicle, 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 ob-

tained 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 identification 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 ConnectedDrive Account that was used.

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 on the Internet.

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.

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The vehicle data is read out via the vehicle's legally mandated diagnostic socket.

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. The provision of 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 centrifugal velocity and deceleration
– Ambient 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 the activation of riding dynamics 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 vehicle's legally mandated diagnostic socket is used to read out the data.
The data is collected, processed and used by the respective service 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.
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 combination with a communication system or integrated navigation system
- Entered 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.

Incorporating 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 information, depending on the type of incorporation, 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 rider's manual or on the 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 term of data protection and use 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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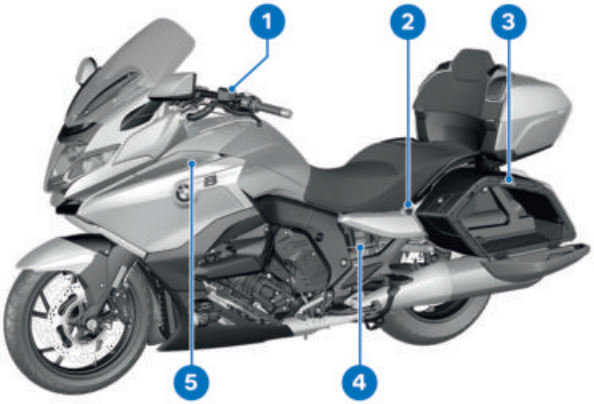
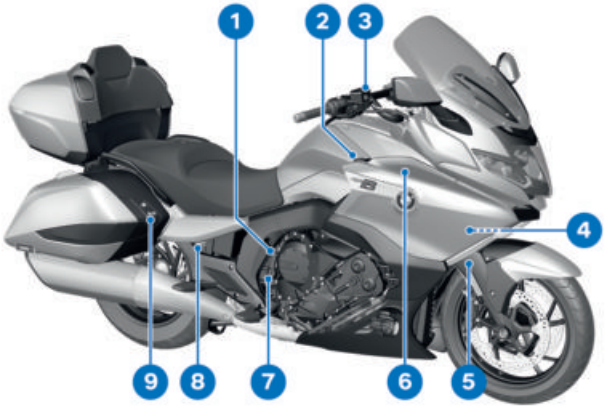
14 OVERVIEWS

OVERALL VIEW, LEFT SIDE



1 Clutch fluid reservoir (➠ 179)
2 Passenger socket (➠ 198)
3 Seat unlocking (➠ 83)
4 Payload table
Tire pressure table
5 Wind deflection wing (➠ 82)

OVERALL VIEW, RIGHT SIDE

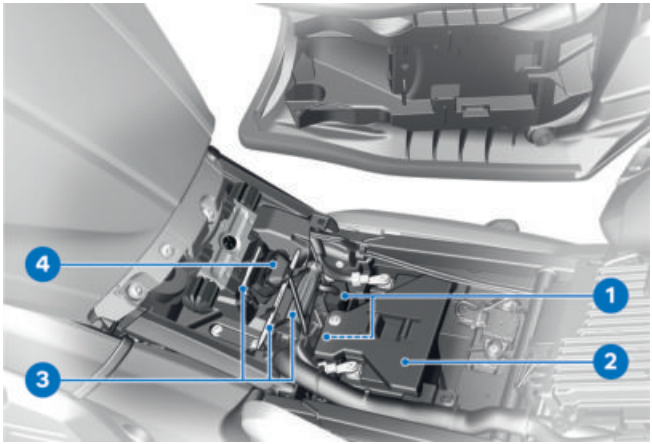


1 Engine number (above oil filler neck)
Vehicle identification number (above the oil filler neck at the main frame tail part)
2 Socket (➠ 198)
3 Brake fluid reservoir for front wheel brake (➠ 176)
4 Coolant level indicator (behind the side trim panel) (➠ 179)
5 Nameplate (wheel carrier, right front)
6 Wind deflection wing (➠ 82)
7 Oil filler opening (➠ 172)
8 Brake fluid reservoir for rear wheel brake (➠ 178)
9 Passenger seat heater (➠ 81)

OVERALL DASHBOARD VIEW

1 Programmable memory buttons (➠ 114)
2 Charging storage compartment button (➠ 87)
3 Charging storage compartment (➠ 87)
4 TFT display (➠ 25)
5 Ignition switch/steering lock (➠ 58)
6 Fuel filler opening (➠ 145)

UNDERNEATH THE SEAT

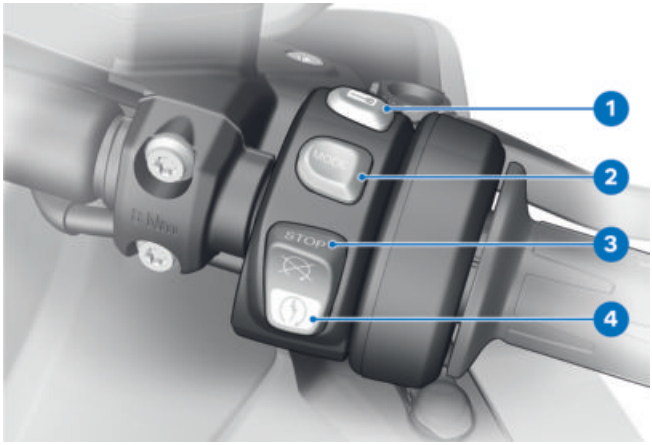


1 Fuses (➠ 194)
2 Battery (➠ 189)
3 Onboard vehicle tool kit (➠ 170)
4 Diagnostic connector (➠ 195)

MULTIFUNCTION SWITCH, LEFT

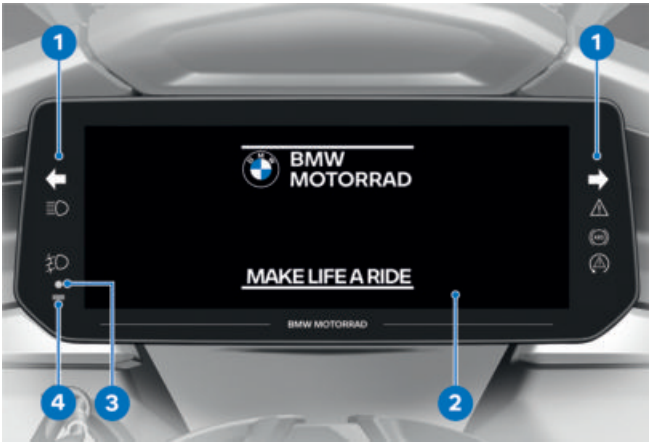
1 High beams and headlight flasher (➠ 65)
2 Cruise control (➠ 74)
3 Hazard warning system (➠ 67)
4 Windshield (➠ 128)
5 Reverser (➠ 78)
6 Auxiliary headlights (➠ 66)
7 Turn signals (➠ 67)
8 Horn
9 Rocker button MENU (➠ 93)
10 Multi-Controller (➠ 93)

MULTIFUNCTION SWITCH, RIGHT



1 Central locking system (➠ 79)
2 Riding mode (➠ 73)
3 Emergency-off switch (➠ 64)
4 Starter button (➠ 137)

INSTRUMENT CLUSTER



1 Indicator and warning lights (➠ 24)
2 TFT display (➠ 25)
3 Indicator light
DWA (➠ 69)
Keyless Ride (➠ 59)
4 Photodiode (for adjusting brightness of instrument lighting)

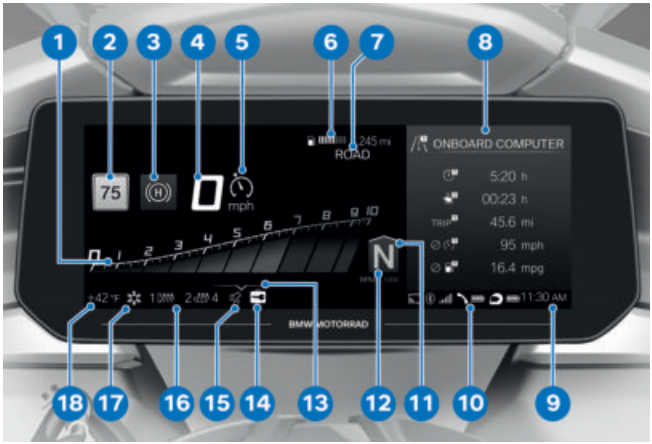
DISPLAYS

03

INDICATOR AND WARNING LIGHTS

1 Turn signal, left (➠ 67)
2 High beams (➠ 65)
3 General warning light (➠ 27)
4 Turn signal, right (➠ 67)
5 DTC (➠ 48)
6 ABS (➠ 47)
7 Auxiliary headlights (➠ 66)

TFT DISPLAY IN PURE RIDE VIEW



1 Tachometer (➠ 99)
2 Speed Limit Info (➠ 99)
3 Hill Start Control (➠ 76)
4 Speedometer
5 Cruise control (➠ 74)
6 Rider info. status line (➠ 97)
7 Riding mode (➠ 72)
8 Split screen (➠ 100)
9 Clock (➠ 101)
10 Connection status (➠ 104)
11 Upshift recommendation (➠ 100)
12 Gear display, "N" (Neutral) is displayed in the neutral position.
13 Operating instructions (➠ 95)
14 Central locking system (➠ 79)
15 Muting (➠ 101)
16 Heating (➠ 80)
17 External temperature warning (➠ 35)
18 Outside temperature

TFT DISPLAY IN MENU VIEW

1 Hill Start Control (➠ 76)
2 Speedometer
3 Cruise control (➠ 74)
4 Rider info. status line (➠ 97)
5 Riding mode (➠ 72)
6 Gear display, "N" (Neutral) is displayed in the neutral position.
7 Split screen (➠ 100)
8 Clock (➠ 101)
9 Connection status (➠ 104)
10 Operating instructions (➠ 95)
11 Central locking system (➠ 79)
12 Muting (➠ 101)
13 Heating (➠ 80)
14 External temperature warning (➠ 35)
15 Outside temperature
16 Menu area

INDICATOR LIGHTS

Layout

Warnings are indicated by the corresponding warning light. Warnings are indicated by the general warning light in combination with a dialog in the TFT display. The general warning light lights up in either yellow or red, depending on the urgency of the warning.

The general warning light lights up for whichever warning is most urgent at the current time.

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

Check Control display

The messages in the display are shown differently in the display. Different colors and characters are used depending on the priority:

–Green CHECK OK **1**: No message, optimal values.
–White circle with lowercase "i" **2**: Information.
–Yellow warning triangle **3**: Warning, value not optimal.
–Red warning triangle **3**: Warning, value critical.

Value display

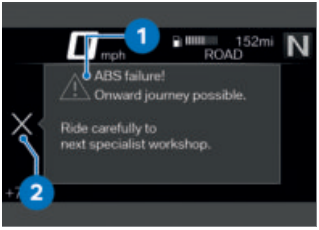
The icons **4** are displayed differently. Different colors are used depending on the assessment of value. Instead of numerical values **8** with units **7**, texts **6** are also displayed:

Color of the icon

–Green: (`OK`) Current value is optimal.
–Blue: (`Cold!`) Current temperature is low.
–Yellow: (`Low!/High!`) Current value is too low or too high.
–Red: (`Hot!/High!`) Current temperature or value is too high.

–White: (---) There is no valid value. Instead of the value, dashes **5** are displayed.

The evaluation of the individual values is possible in part only after a certain riding duration or speed. If a measured value cannot yet be displayed due to unfulfilled measurement conditions, dashes are displayed instead as placeholders. As long as no valid measured value is available, no evaluation is carried out in the form of a colored symbol.



Check Control dialog

Messages are output as Check Control dialog **1**.

–If several Check Control messages of the same priority are present, the messages change in the order in which they occur, until they are acknowledged.

–If the icon **2** is active, this can be acknowledged by tilting the Multi-Controller to the left.

–Check Control messages are dynamically added to the screens in the `My vehicle` menu as additional tabs (➠ 95). You can go back to the message as long as the fault is present.

Overview of warning indicators

Indicator and warning lights	Display text	Meaning
	 is displayed.	External temperature warning (➠ 35)
 lights up yellow.	 Remote key not in range.	Radio-operated key outside reception range (➠ 35)
 lights up yellow.	 Keyless Ride failure!	Keyless Ride malfunction (➠ 36)
 lights up yellow.	 Remote key battery low.	Replacing the battery of the radio-operated key (➠ 36)
	 is displayed in yellow.	Vehicle voltage too low (➠ 36)
	 Vehicle voltage low.	
 lights up yellow.	 is displayed in yellow.	Vehicle voltage critical (➠ 37)
	 Vehicle voltage critical!	
 blinks yellow.	 is displayed in yellow.	Charging voltage critical (➠ 37)
	 Battery critically low!	
 lights up yellow.	 The faulty light source is displayed.	Faulty light source (➠ 38)
 blinks yellow.	 The faulty light source is displayed.	
 lights up yellow.	 Light control failure!	Light control unit failed (➠ 39)

Indicator and warning lights	Display text	Meaning
	Anti-theft alarm batt. capacity low.	Anti-theft alarm battery low charge (➠ 39)
	Anti-theft alarm battery discharged.	Anti-theft alarm battery discharged (➠ 39)
	Anti-theft alarm system failure.	DWA malfunction (➠ 40)
lights up yellow.	Engine oil level Check engine oil level.	Low engine oil level (➠ 40)
lights up yellow.	Coolant temperature too high!	Coolant temperature too high (➠ 41)
lights up yellow.	No communication with engine control.	Engine control malfunction (➠ 41)
lights up.		
lights up yellow.	Fault in the engine control.	Engine in emergency-operation mode (➠ 41)
blinks red.	Serious fault in the engine control.	Serious fault in the engine control (➠ 42)
lights up yellow.	is displayed in yellow.	Tire pressure is the limit range of approved tolerance (➠ 44)
	Tire pressure not at set-point.	

Indicator and warning lights	Display text	Meaning
 blinks red.	 is displayed in yellow.	Tire pressure is outside the approved tolerance range (➠ 44)
	 `Tire pressure not at set-point.`	
	 `Tire Press. Monitor. Loss of pressure.`	
	 `"---"`	Transmission fault (➠ 45)
 lights up yellow.	 `"---"`	Sensor faulty or system fault (➠ 45)
 lights up yellow.	 `Tire Press. Monitor failure!`	Tire Pressure Monitor (TPM) malfunction (➠ 46)
 lights up yellow.	 `TPM sensors battery low.`	Battery of the tire pressure sensor weak (➠ 46)
	 `Fall sensor faulty.`	Fall sensor defective (➠ 46)
	 `Cannot start engine.`	Motorcycle has fallen over (➠ 46)
 lights up yellow.	 `Side stand monitoring faulty`	Side stand monitoring faulty (➠ 47)
 flashes.		ABS self-diagnosis not completed (➠ 47)
 lights up yellow.	 `Limited ABS availability!`	ABS fault (➠ 47)

Indicator and warning lights	Display text	Meaning
 lights up.		ABS fault (➠ 47)
 lights up yellow.	 ABS Pro failure!	ABS Pro failure (➠ 48)
 lights up.		
 flashes rapidly.		DTC intervention (➠ 48)
 flashes slowly.		DTC self-diagnosis not completed (➠ 48)
 lights up.	 Off!	DTC switched off (➠ 49)
	 Traction control deactivated.	
 lights up yellow.	 Traction control limited.	Limited DTC availability (➠ 49)
 lights up.		
 lights up yellow.	 Traction control failure!	DTC error (➠ 49)
 lights up.		
 lights up yellow.	 Spring strut adjustment faulty!	D-ESA fault (➠ 50)
	 is displayed in green.	Hill Start Control active (➠ 50)
	 blinks yellow.	Hill Start Control automatically deactivated (➠ 50)

Indicator and warning lights	Display text	Meaning
	HSC not available. Side stand lined.	Hill Start Control automatically deactivated (➠ 50)
	 is displayed.	Hill Start Control cannot be activated (➠ 51)
	HSC not available. Engine not running.	
 lights up yellow.	 Brake temperature high!	Brake temperature too high (➠ 51)
 lights up yellow.	 Brake temperature critical!	Brake temperature critical (➠ 51)
 lights up yellow.	 Cruise control not functioning.	Cruise control malfunctioned (➠ 52)
	 Audio system Level 3 too hot	Audio system temperature too high (➠ 52)
	 Audio system voltage is high!	Audio system voltage too high (➠ 53)
	 Low fuel.	Fuel down to reserve volume (➠ 53)
	 Gear indicator flashes.	Gear not trained (➠ 53)
 flashes in green.		Hazard warning lights system switched on (➠ 53)
 flashes in green.		

Indicator and warning lights	Display text	Meaning
	 is displayed in white. `Service due!`	Service due (➠ 54)
 lights up yellow.	 is displayed in yellow. `Service overdue!`	Service date missed (➠ 54)

Outside temperature
The outside temperature is displayed in the status line of the TFT display.
Motor heat can lead to spurious measurement readings of the outside temperature when the vehicle is stationary. If the effect of the motor heat becomes excessive, dashes are temporarily displayed instead of the value.

If the outside temperature falls below the limit value of Approx. 37 °F (Approx. 3 °C), there is a risk of black ice formation.
The first time the temperature drops below this value, the outside temperature display and ice crystal symbol will blink in the status line of the TFT display.

External temperature warning
is displayed.

Possible cause:

The outside temperature measured on the vehicle is less than:
Approx. 37 °F (Approx. 3 °C)

WARNING

Risk of black ice, even above Approx. 37 °F (Approx. 3 °C)
Risk of accident
- At a low outside temperature, icy conditions must expected on bridges and in shady road areas.

- Use caution when riding.

Radio-operated key outside reception range
–with Keyless Ride OE

lights up yellow.

`Remote key not in range. It is not possible to turn on the ignition again.`
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
- Replacing the battery of the radio-operated key (➠ 63).
- Use the spare key for further travel.

–with Keyless Ride OE

- Battery of radio-operated key is dead or radio-operated key is lost (➠ 62).
- If the Check Control dialog 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.

Keyless Ride malfunction

–with Keyless Ride OE

 lights up yellow.

 `Keyless Ride failure! Do not stop engine. Engine restart may not be possible.`

Possible cause:

The Keyless Ride control unit has diagnosed a communication fault.

- Do not shut off the engine. Visit a specialist workshop immediately if possible, ideally an authorized BMW Motorrad retailer.

» Engine start using Keyless Ride is no longer possible.

» DWA can no longer be activated.

Replacing the battery of the radio-operated key

–with Keyless Ride OE

 lights up yellow.

 `Remote key battery low. Limited central locking function. Change battery.`

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.
- Replacing the battery of the radio-operated key (➠ 63).

Vehicle voltage too low

 is displayed in yellow.

 `Vehicle voltage low. Switch off unneeded consumers.`

The vehicle voltage is too low. If you continue riding, the vehicle electronics will discharge the battery.

Possible cause:

Consumers with high electrical consumption, e.g. heating vests, are in operation; too many consumers are in operation at the same time, or the battery is faulty.

- Switch off consumers that are not needed or disconnect them from the electrical system.
- If the malfunction persists or occurs without any consumers connected, have the malfunction corrected as soon as possible at a specialist workshop, preferably an authorized BMW Motorrad retailer.

Vehicle voltage critical

 lights up yellow.

 is displayed in yellow.

 `Vehicle voltage critical! Consumers were switched off Check battery condition.`

WARNING

Failure of vehicle systems
Accident hazard
• Do not continue riding.

The vehicle voltage is critical. If you continue riding, the vehicle electronics will discharge the battery.

Possible cause:
Consumers with high electrical consumption, e.g. heating vests, are in operation; too many consumers are in operation at the same time, or the battery is faulty.

- Switch off consumers that are not needed or disconnect them from the electrical system.
- If the malfunction persists or occurs without any consumers connected, have the malfunction corrected as soon as possible at a specialist workshop, preferably an authorized BMW Motorrad retailer.

Charging voltage critical

 blinks yellow.

 is displayed in yellow.

 `Battery critically low! Risk of accident. Do not continue to operate vehicle.`

WARNING

Failure of vehicle systems
Accident hazard
• Do not continue riding.

The battery is not being charged. If you continue riding,

the vehicle electronics will discharge the battery.
Possible cause:
Alternator or alternator drive faulty.
- Have the malfunction corrected as soon as possible at an authorized service facility, preferably an authorized BMW Motorrad Retailer.

Faulty light source

 lights up yellow.

 The faulty light source is displayed:

 `High beam faulty!`

 `Turn indicator front left faulty!` or `Turn indicator front right faulty!`

 `Low beam faulty!`

 `Front parking lamp faulty!`

 `Left auxiliary headlight faulty!` or `Right auxiliary headlight faulty!`

 `Tail light faulty!`

 `Brake light faulty!`

 `Rear left turn signal faulty!` or `Rear right turn signal faulty!`.

 `License plate light faulty!`

–`Have checked by a specialist workshop.`

 blinks yellow.

 The faulty light source is displayed:

 `Active headlamp faulty.`

WARNING

Overlooking the vehicle in traffic due to a defective light source on the vehicle
Safety risk
- Replace defective light sources as quickly as possible. For details please contact a specialist service facility, preferably an authorized BMW Motorrad Retailer.

Possible cause:
Light source faulty.
- Locate faulty light sources by means of a visual inspection.
- Have the LED light source replaced in full; for details

please contact a specialist workshop, preferably an authorized BMW Motorrad retailer.

Light control unit failed

lights up yellow.

`Light control failure! Have checked by a specialist workshop.`

WARNING

Overlooking the vehicle in traffic due to failure of the vehicle lighting

Safety risk

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

Possible cause:

The light control unit has diagnosed a communication fault.

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

Anti-theft alarm battery low charge

–with anti-theft alarm system (DWA) OE

`Anti-theft alarm batt. capacity low. No limitations. Arrange an appointment at a specialist workshop.`

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

Possible cause:

The anti-theft alarm battery no longer has its full capacity. The operation of the anti-theft alarm system is only ensured for a limited time with the motorcycle battery disconnected.

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

Anti-theft alarm battery discharged

–with anti-theft alarm system (DWA) OE

`Anti-theft alarm battery discharged. No independent alarm. Arrange an appointment at a specialist workshop.`

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

Possible cause:
The anti-theft alarm system battery is completely discharged. Operation of the anti-theft alarm system is no longer ensured when the motorcycle's battery is disconnected.
- Contact an authorized service facility, preferably an authorized BMW Motorrad retailer.

DWA malfunction
–with anti-theft alarm system (DWA) OE

`Anti-theft alarm system failure. Have checked by a specialist workshop.`
Possible cause:
The DWA control unit has diagnosed a communication fault.
- Contact a specialist workshop, preferably an authorized BMW Motorrad retailer.

» DWA can no longer be activated or deactivated.
» False alarm possible.

Electronic oil-level check
The electronic oil-level check evaluates the oil level in the engine as `OK` or `Low!`

The following conditions must be satisfied in order to use the electronic oil-level check:
–Engine in Neutral for at least 10 seconds.
–Engine is at operating temperature.
–No brake applied.
–Vehicle stands vertically on a level surface.
–The side stand is folded in or the vehicle is resting on the center stand.

If the measurement is incomplete or the conditions specified above are not fulfilled, an assessment of the oil level is not possible. Dashes (`---`) are indicated in place of the note.

Low engine oil level
lights up yellow.

`Engine oil level Check engine oil level.`
Possible cause:
The electronic oil level sensor has detected that the engine's oil level is too low. Check the engine oil level with the dipstick the next time you stop to refuel:
- Checking the engine oil level (➠ 172).

If oil level is too low:

- Topping up the engine oil (➠ 173).

Coolant temperature too high

 lights up yellow.

Coolant temperature too high! Check coolant level. Carry on at moderate pace to cool.

ATTENTION

Riding with overheated engine

Engine damage

- Be sure to observe the measures listed below.

Possible cause:

Coolant level is too low.

- Checking the coolant level (➠ 179).

If coolant level is too low:

- Have the coolant level topped up and the coolant system checked at a specialist workshop, preferably an authorized BMW Motorrad retailer.

Possible cause:

The coolant temperature is too high.

- If possible, continue driving in the part-load range to cool down the engine.
- In traffic jams, switch off the engine, but keep the ignition switched on so that the radiator fan continues to operate.
- Should the coolant temperature frequently be too high, have the fault rectified as quickly as possible by an authorized workshop, preferably an authorized BMW Motorrad retailer.

Engine control malfunction

 lights up yellow.

 lights up.

No communication with engine control. Multiple sys. affected. Ride carefully to the next specialist workshop

Possible cause:

Communication with the engine control unit has malfunctioned.

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

Engine in emergency-operation mode

 lights up yellow.

 Fault in the engine control. Onward journey possible. Ride carefully to next specialist workshop.

WARNING

Unusual handling when the engine is in emergency operation
Accident hazard
- Avoid rapid acceleration and passing maneuvers.

Possible cause:
The engine control unit has diagnosed a fault. In exceptional cases, the engine stops and can no longer be started. Otherwise, the engine runs in emergency operation.
- Continued riding is possible, however, the accustomed engine power may not be available.
- Have the malfunction corrected as soon as possible at a specialist workshop, preferably an authorized BMW Motorrad retailer.

Serious fault in the engine control

 blinks red.

 Serious fault in the engine control. Onward journey possible. Damage possible. Have checked by a workshop.

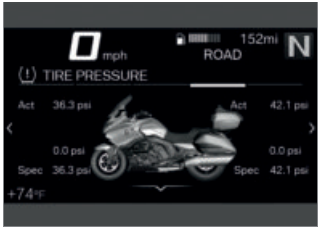
WARNING

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.

Possible cause:
The engine control unit has diagnosed a fault, which can lead to a severe consequential fault. The engine is in emergency operation.
- Continued riding is possible, however it is not recommended.
- Avoid high load and engine speed ranges if possible.
- Have the malfunction corrected as soon as possible at a specialist workshop, preferably an authorized BMW Motorrad retailer.

Tire pressure

In addition to the MY VEHICLE menu screen and the Check Control messages, there is also the TIRE PRESSURE screen to display the tire pressures:



The values on the left refer to the front wheel, and the values on the right refer to the rear wheel.

The pressure differential is indicated by the current and set-point tire pressure.

Immediately after the ignition is turned on, only dashes are displayed. The transmission of the tire pressure values does not begin until the following minimum speed is exceeded for the first time:

RDC sensor is not active
min 19 mph (min 30 km/h) (The RDC sensor transmits its signal to the vehicle only once the minimum speed has been exceeded.)
The tire pressures are shown in the TFT display with temperature compensation and are always based on the following tire air temperature:
68 °F (20 °C)

If the tire icon is also displayed in yellow or red, this is a warning. The pressure differential is highlighted with an exclamation mark of the same color.

If the value in question is within the limit range of the permitted tolerance, the general warning light also lights up yellow.

If the determined tire pressure is outside the permitted tolerance, the general warning light blinks red.

For more information about the BMW Motorrad Tire Pressure Monitor (TPM), see the "Technology in detail" chapter (➠ 161).

Tire pressure is the limit range of approved tolerance

 lights up yellow.

 is displayed in yellow.

 `Tire pressure not at setpoint. Check tire pressure.`

Possible cause:
The measured tire pressure is within the limit range of the permissible tolerance.
- Correct the tire pressure.
- Before adjusting the tire pressure, check the information on temperature compensation and tire pressure adjustment in the "Technology in detail" chapter (➠ 162).

» The target tire pressures can be found in the following locations:
– On the back cover of the rider's manual
– Instrument cluster in the `TIRE PRESSURE` view
– Sign on the left fork leg

Tire pressure is outside the approved tolerance range

 blinks red.

 is displayed in yellow.

 `Tire pressure not at setpoint. Stop immediately! Check tire pressure.`

 `Tire Press. Monitor. Loss of pressure. Stop immediately! Check tire pressure.`

WARNING

Tire pressure is outside the approved tolerance range.
Risk of accident, deterioration in the handling characteristics of the vehicle.
- Adjust the driving style.

Possible cause:
The measured tire pressure is outside of the permissible tolerance.
- Check tire for damage and ridability.

If the tire is still ridable:
- Correct the tire pressure at the next opportunity.
- Before adjusting the tire pressure, check the information on temperature compensation and tire pressure adjustment

in the "Technology in detail" chapter (➠ 162).
» The target tire pressures can be found in the following locations:
– On the back cover of the rider's manual
– Instrument cluster in the TIRE PRESSURE view
– Sign on the left fork leg
• Have the tire checked by a specialist workshop for damage, preferably by an authorized BMW Motorrad retailer.

If you are unsure about the tire's ridability:
• Do not continue riding.
• Contact roadside service.

Transmission fault


"– – –"

Possible cause:
The vehicle has not reached the minimum speed (➠ 161).

	RDC sensor is not active
min 19 mph (min 30 km/h) (The RDC sensor transmits its signal to the vehicle only once the minimum speed has been exceeded.)	

• Watch the RDC display at higher speed. This is a permanent fault only when the general warning light also lights up. In this case:
• Have the malfunction corrected at a specialist workshop, preferably an authorized BMW Motorrad retailer.

Possible cause:
There is a fault in the radio link to the RDC sensors. Possible causes are radio systems in the surrounding area, which interfere with the connection between the TPM control unit and the sensors.
• Observe the RDC display in a different environment. This is a permanent fault only when the general warning light also lights up. In this case:
• Have the malfunction corrected at a specialist workshop, preferably an authorized BMW Motorrad retailer.

Sensor faulty or system fault


lights up yellow.


"– – –"

Possible cause:
Wheels without RDC sensors are installed.
• Retrofit wheel set with RDC sensors.

Possible cause:
One or two RDC sensors have failed or a system fault has occurred.
- Have the malfunction corrected at a specialist workshop, preferably an authorized BMW Motorrad retailer.

Tire Pressure Monitor (TPM) malfunction

 lights up yellow.

 `Tire Press. Monitor failure! Function limited. Have checked by a specialist workshop.`

Possible cause:
The TPM control unit has diagnosed a communication fault.
- Contact a specialist workshop, preferably an authorized BMW Motorrad retailer.

» Tire pressure warnings not available.

Battery of the tire pressure sensor weak

 lights up yellow.

 `TPM sensors battery low. Function limited. Have checked by a specialist workshop.`

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

Possible cause:
The battery for the tire pressure sensor is no longer charged to full capacity.
Operation of the Tire Pressure Monitor is only ensured for a limited time.
- Contact a specialist workshop, preferably an authorized BMW Motorrad retailer.

Fall sensor defective

 `Fall sensor faulty. Have checked by a specialist workshop.`

Possible cause:
The fall sensor is not functioning.
- Contact a specialist workshop, preferably an authorized BMW Motorrad retailer.

Motorcycle has fallen over

 `Cannot start engine. Stand motorcycle upright. Switch ignition on/off. Start the engine.`

Possible cause:
The fall sensor has detected a fall and turned off the engine.
- Raise the vehicle to upright position and check for possible damage.
- Turn ignition off and then on again or turn emergency-off switch on and then off again.

Side stand monitoring faulty

 lights up yellow.

 Side stand monitoring faulty Onward journey possible. Stop engine when stationary! Have checked by workshop.

Possible cause:
The side support switch or its wiring is damaged. The engine is switched off when the speed falls below 3 mph (5 km/h). The journey cannot be continued.
- Contact a specialist workshop, preferably an authorized BMW Motorrad retailer.

ABS self-diagnosis not completed

 flashes.

Possible cause:

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

- Ride off slowly. Please note that the ABS function is only available after the self-diagnosis has completed.

ABS fault

 lights up yellow.

 lights up.

 Limited ABS availability! Onward journey possible. Ride carefully to next specialist workshop.

Possible cause:
The ABS control unit has detected an fault. The partially integral brake has malfunctioned. The ABS function is limited.
- You may continue riding. Take note of additional information on special

situations that can lead to an ABS fault message (➠ 156).
- Have the malfunction corrected as soon as possible at a specialist workshop, preferably an authorized BMW Motorrad retailer.

ABS Pro failure

 lights up yellow.

 lights up.

ABS Pro failure! Onward journey possible. Ride carefully to next specialist workshop.

Possible cause:
The ABS Pro control unit has detected a fault. The ABS Pro function is not available. The ABS function remains available. ABS only supports braking in straight-ahead riding.
- You may continue riding. Take note of additional information on special situations which can lead to an ABS Pro fault message (➠ 156).
- Have the malfunction corrected as soon as possible at a specialist workshop, preferably an authorized BMW Motorrad retailer.

DTC intervention

 flashes rapidly.

DTC has detected instability at the rear wheel and responded by reducing the torque. The indicator and warning light flashes longer than the DTC intervention lasts. This provides the rider with visual feedback for the control action that was taken even after the critical situation has passed.

DTC self-diagnosis not completed

 flashes slowly.

Possible cause:

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

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

DTC switched off

 lights up.

 Off!

 Traction control deactivated.

Possible cause:
The DTC system has been turned off by the rider.

- Turning DTC function off and on (➠ 71).

Limited DTC availability

 lights up yellow.

 lights up.

 Traction control limited. Onward journey possible. Ride carefully to next specialist workshop.

Possible cause:
The DTC control unit has detected an fault.

ATTENTION

Damage to components
Damage to sensors, for example, with the resultant malfunctions

- Do not carry along any objects under the rider's or passenger's seat.
- Secure vehicle tools.

- Do not damage the angular rate sensor.
- Note that the DTC function and the dynamic engine brake control engine drag torque control are only available with limitations.
- You may continue riding. Observe additional information on situations that can lead to a DTC fault (➠ 158).
- Have the malfunction corrected as soon as possible at a specialist workshop, preferably an authorized BMW Motorrad retailer.

DTC error

 lights up yellow.

 lights up.

 Traction control failure! Onward journey possible. Ride

carefully to the next specialist workshop.
Possible cause:
The DTC control unit has detected an fault.

ATTENTION

Damage to components
Damage to sensors, for example, with the resultant malfunctions
- Do not carry along any objects under the rider's or passenger's seat.
- Secure vehicle tools.

- Do not damage the angular rate sensor.
- Note that the DTC function and the engine drag torque control are not available.
- You may continue riding. Observe additional information on situations that can lead to a DTC fault (➠ 158).
- Have the malfunction corrected as soon as possible at a specialist workshop, preferably an authorized BMW Motorrad retailer.

D-ESA fault


lights up yellow.


Spring strut adjustment faulty! Onward journey possible. Ride carefully to next specialist workshop.
Possible cause:
The D-ESA control unit has detected a fault. Motorcycle damping is in this condition very firm and riding is rather uncomfortable - in particular on rough roads.
- Have the malfunction corrected as soon as possible at an authorized service facility, preferably an authorized BMW Motorrad Retailer.

Hill Start Control active


is displayed in green.

Possible cause:
The Hill Start Control (➠ 164) was activated by the rider.
- Turn off Hill Start Control.
- Operating Hill Start Control Pro (➠ 77).

Hill Start Control automatically deactivated


blinks yellow.

HSC not available. Side stand lined.

Possible cause:
Hill Start Control was switched off automatically.
- 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 cannot be activated

 is displayed.

`HSC not available. Engine not running.`
Possible cause:
Hill Start Control was switched off automatically.
- 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.

Brake temperature too high

 lights up yellow.

 `Brake temperature high! To cool down, continue riding carefully. Avoid dynamic riding.`

DANGER

Driving with overheated brakes
Risk of accident due to brake failure
- Adapt driving style.
- Use the engine brake to avoid frequent braking.

WARNING

Failure to observe maintenance intervals
Accident hazard
- Comply with the maintenance intervals applicable for the brakes.

Brake temperature critical

 lights up yellow.

 `Brake temperature critical! To cool down, continue riding carefully. Avoid dynamic riding.`

DANGER

Driving with overheated brakes
Risk of accident due to brake failure
- Adapt driving style.
- Use the engine brake to avoid frequent braking.

WARNING

Failure to observe maintenance intervals
Accident hazard
- Comply with the maintenance intervals applicable for the brakes.

Possible cause:
The brake temperature is in a critical range.
- You may continue riding carefully until the warning light goes out.

Cruise control malfunctioned

 lights up yellow.

 `Cruise control not functioning. Onward journey possible. Testing by workshop required`

Possible cause:
The control unit has detected a fault.
- Note that the cruise control function is not available.
- You may continue riding. Have the malfunction corrected as soon as possible at a specialist workshop, preferably an authorized BMW Motorrad retailer.

Audio system temperature too high

 `Audio system Level 3 too hot Audio system is shut down.`

The temperature of the audio system control unit is too high. The audio system is shut down.
Possible cause:
The audio system control unit has diagnosed excess temperature.
- Protect the motorcycle from direct sunlight.
- If the malfunction persists, have the malfunction corrected as soon as possible at a specialist workshop, preferably an authorized BMW Motorrad retailer.

Audio system voltage too high

Audio system voltage is high! Audio system is muted.

Possible cause:
The audio system control unit has diagnosed excess voltage.

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

Fuel down to reserve volume

Low fuel. Ride to the next filling station.

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 (➠ 145).

Gear not trained

–with Gearshift Assistant Pro OE

Gear indicator flashes.

Possible cause:
–with Gearshift Assistant Pro OE
The transmission sensor has not been completely taught in.

- Engage neutral N and run the engine for at least 10 seconds while parked to teach in the neutral position.
- Shift all gears with clutch control and ride for at least 10 seconds in each engaged gear.

» The gear display stops blinking when the transmission sensor has been successfully taught in.

–Once the transmission sensor has been fully taught in, the Gear Shift Assistant Pro functions as described (➠ 163).

- If the teach-in procedure is unsuccessful, have the fault corrected at a specialist workshop, preferably an authorized BMW Motorrad retailer.

Hazard warning lights system switched on

flashes in green.

 flashes in green.

Possible cause:
The hazard warning flasher was switched on by the rider.
- Hazard warning system (➠ 67).

Service display

 If service is overdue, the service date or the distance covered at which service should have been completed is accompanied by the general warning light in yellow.

If service is overdue, a yellow Check Control message is displayed. The displays for service, service appointment, and remaining distance are also highlighted with exclamation marks in the menu windows MY VEHICLE and SERVICE REQUIREMENTS.

 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 due

 is displayed in white.

Service due! Have a service performed at a specialist workshop.
Possible cause:
Service is due because of the mileage or the date.
- Have service performed regularly by a specialist workshop, preferably an authorized BMW Motorrad retailer.

» The operating safety and road safety of the vehicle remains unchanged.
» The best-possible value retention of the vehicle is ensured.

Service date missed

 lights up yellow.

 is displayed in yellow.

Service overdue! Have a service performed at a specialist workshop.
Possible cause:
Service is overdue because of the riding performance or the date.
- Have service performed regularly by a specialist workshop, preferably an authorized BMW Motorrad retailer.

» The operating safety and road safety of the vehicle remains unchanged.
» The best-possible value retention of the vehicle is ensured.

OPERATION

04

IGNITION SWITCH/STEERING LOCK

Ignition keys

You are provided with 2 ignition keys. If you lose your keys, refer to the notes regarding the electronic immobilizer (EWS) (➠ 62).

The same key fits the following locks:

–Ignition switch/steering lock
–Pannier lock
–Fuel filler cap
–Seat lock
–Topcase lock

Locking the steering lock

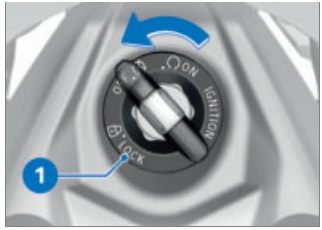
ATTENTION

Incorrect handlebar angle when parking on side stand

Component damage cause by tipping over

- On level ground, always turn the handlebars to the left to set the steering lock.

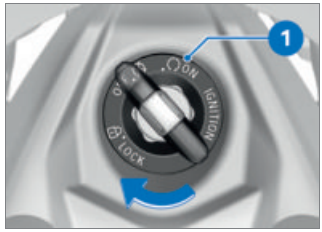
- Turn handlebars to left.



- Turn the ignition key to position **1** while moving the handlebars somewhat.

» Ignition, lights and all electrical circuits turned off.
» Steering lock locked.
» The ignition key can be removed.

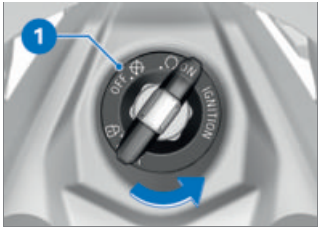
Turning on the ignition



- Turn the ignition key to position **1**.

» Parking lights and all function circuits turned on.
» Pre-Ride-Check is carried out. (➠ 138)
» ABS self-diagnosis is performed. (➠ 138)
» DTC self-diagnosis is performed. (➠ 139)

Turning off the ignition



- Turn the ignition key to position **1**.

» After the ignition has been turned off, the instrument cluster remains turned on for a little while and indicates any existing fault messages.
» The windshield moves to the lower end position.
» Steering lock is not locked.
» Electrically powered accessories remain operational for a limited period of time.
» The battery can be recharged using the socket on the dashboard.
» The ignition key can be removed.

- The auxiliary LED headlights are extinguished shortly after the ignition has been turned off.

IGNITION WITH KEY-LESS RIDE

Ignition keys
–with Keyless Ride OE

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. If you lose your keys, refer to the notes regarding the electronic immobilizer (EWS) (➠ 62).
The ignition, fuel cap, central locking system and anti-theft alarm system are controlled with the radio-operated key.
The seat lock, topcase and case can be operated manually.

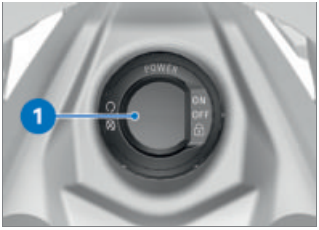
When the range of the radio key is exceeded (e.g. in the case), the motorcycle cannot be started and the central locking system cannot be locked/unlocked..
When the range is exceeded, the ignition is switched off after approx. 1.5 minutes, the

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 the steering lock
–with Keyless Ride[OE]

Requirement
Handlebars are turned to the left. Radio-operated key is within reception area.



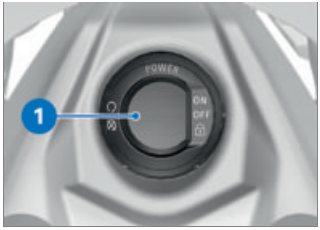
ATTENTION

Incorrect handlebar angle when parking on side stand
Component damage cause by tipping over
- On level ground, always turn the handlebars to the left to set the steering lock.

- Press and hold button **1**.
» Steering lock audibly locks.
» Ignition, lights and all electrical circuits turned off.
- To unlock the steering lock, briefly press button **1**.

Turning on the ignition
–with Keyless Ride[OE]

Requirement
Radio-operated key is within reception area.



- There are **two** ways to activate the ignition.

Version 1:

- Briefly press button **1**.

» Parking lights and all function circuits are turned on.
» Auxiliary LED headlights are turned on.
» Pre-Ride-Check is carried out. (➠ 138)
» ABS self-diagnosis is performed. (➠ 138)
» DTC self-diagnosis is performed. (➠ 139)

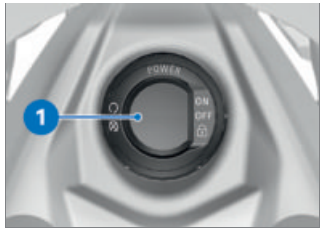
Version 2:

- Steering lock is locked; press and hold button **1**.

» Steering lock is unlocked.
» Parking lights and all function circuits turned on.
» Auxiliary LED headlights are turned on.
» Pre-Ride-Check is carried out. (➠ 138)
» ABS self-diagnosis is performed. (➠ 138)
» DTC self-diagnosis is performed. (➠ 139)

Turning off the ignition –with Keyless Ride OE

Requirement
Radio-operated key is within reception area.



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

Version 1:

- Briefly press button **1**.

» After the ignition has been turned off, the instrument cluster remains turned on for a little while and indicates any existing fault messages.
» The windshield moves to the lower end position.
» Ground light lights up briefly.
» Steering lock is not locked.
» Electrically powered accessories remain operational for a limited period of time.
» The battery can be recharged using the socket on the dashboard.

Version 2:
- Turn handlebars to left.
- Press and hold button **1**.

» After the ignition has been turned off, the instrument cluster remains turned on for a little while and indicates any existing fault messages.
» The windshield moves to the lower end position.
» Ground light lights up briefly.
» Steering lock locked.
» Electrically powered accessories remain operational for a limited period of time.
» The battery can be recharged using the socket on the dashboard.

EWS electronic immobilizer

The motorcycle's electronics monitors the data stored in the ignition key through a ring antenna incorporated in the ignition lock. The engine control unit does not enable an engine start until the ignition key has been recognized as "authorized" for your motorcycle.

An additional ignition key attached to the same ring as the ignition key used to start the engine could "irritate" the electronics, in which case the enabling signal for 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 an ignition key, you can have it disabled by your BMW Motorrad retailer. For this purpose, you must bring all of the motorcycle's remaining ignition keys with you.
The engine can no longer be started using a disabled ignition key; however, a disabled ignition key can be enabled again.
Spare keys are available only through an authorized BMW Motorrad retailer. The keys are part of an integrated safety system, so the retailer is under an obligation to check the legitimacy of all applications for replacement/extra ignition keys.

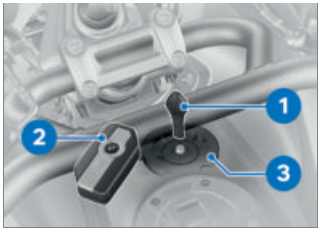
Battery of radio-operated key is dead or radio-operated key is lost

–with Keyless Ride [OE]

- Park the motorcycle, making sure the ground is level and firm.
- If you lose your keys, refer to the notes regarding the

electronic immobilizer (EWS) (➠ 62).

- Should you lose the radio-operated key during a trip, the vehicle can be started using the spare key.
- If the battery of the radio-operated key is completely drained, the vehicle can be started by touching the tank cover with the radio-operated key.



- Hold the spare key **1** or the drained radio-operated key **2** against the tank cover over the ring antenna **3**.

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

» Pre-Ride-Check is carried out. (➠ 138)
» Key has been detected.

- Starting the engine (➠ 137).

Replacing the battery of the radio-operated key
–with Keyless Ride[OE]

If the radio-operated key does not respond when a button is pressed for a short or long time:

- The battery for the radio-operated key no longer has full capacity.

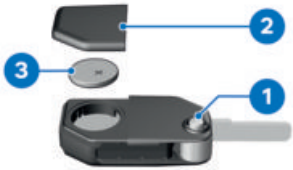
Remote key battery low. Limited central locking function. Change battery.

DANGER

Swallowing a battery
Risk of injury or death

- An ignition key contains a button cell as a battery. Batteries or button cells can be swallowed and cause severe or fatal injuries within two hours, e.g. due to internal burns or chemical burns.
- Keep ignition keys and batteries out of the reach (range) of children.
- If it is suspected that a battery or button cell has been swallowed or is inside a body part, seek medical attention immediately.

- Change battery.



- 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 terminal facing up.

Battery type
For Keyless Ride radio-operated key
CR 2032

- Install battery cover **2**.
» The indicator light in the instrument cluster blinks.
» The radio-operated key is working again.

EMERGENCY-OFF SWITCH

1 Emergency-off 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 turned off easily and quickly using the emergency-off switch.

A Engine turned off
B Operating position

LIGHTING

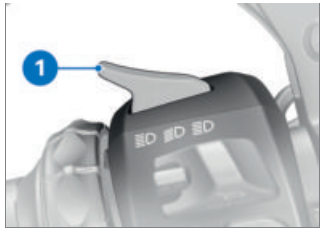
Parking lights

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

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

Turn on low-beam headlight

- Turning on the ignition (➠ 58).
- Starting the engine (➠ 137).



- Alternative: With the ignition turned on, pull the switch **1**.

The low beams burden the battery. When the engine is not running, only turn on the low beams for a limited period of time.

High beams and headlight flasher

- Turning on the ignition (➠ 58).

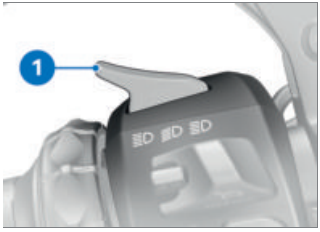
- Press switch **1** forward to turn on high beams.
- Pull switch **1** toward rear to actuate headlight flasher.

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

The high beams burden the battery. When the engine is not running, only turn on the high beams for a limited period of time.

Headlight courtesy delay feature

- Turning off the ignition (➠ 59).



- Immediately after turning off the ignition, pull switch **1** back and hold until the headlight courtesy delay feature turns on.

» The vehicle lighting lights up for one minute and then turns off automatically.

– This can be used, for example, to light the path to your front door after the vehicle is parked.

Ground light

– with ground light OE

The ground light lights up for a brief time after the ignition has been turned off or after the anti-theft alarm system has been deactivated using the radio-operated key.

Roadside parking lights

- Turning off the ignition (➠ 59).

- Immediately after turning off the ignition, push button **1** to the left and hold it until the roadside parking lights turn on.
- Turn ignition on and then off again to turn off the roadside parking lights.

Auxiliary headlights

Requirement

The low beams must be turned on.

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 turn on the auxiliary headlights.

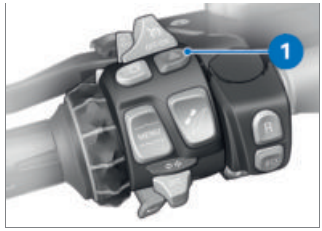
lights up.

- Press button **1** again to turn off the auxiliary headlights.

Hazard warning system

- Turning on the ignition (➠ 58).

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 turn on the hazard warning system.

» Ignition can be turned off.

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

Turn signals

- Turning on the ignition (➠ 58).

- Press button **1** to the left to turn on the left-side turn signals.
- Press button **1** to the right to turn on the right-side turn signals.

- Move button **1** to the center position to turn off the turn signals.

Comfort turn signals

When button **1** is pushed to the right or left, the turn signals automatically turn off under the following conditions:

–Speed below 19 mph (30 km/h): After 164 ft (50 m) distance covered.

–Speed between 19 mph (30 km/h) and 62 mph (100 km/h): After a speed-dependent distance has been covered or in the event of an acceleration.

–Speed above 62 mph (100 km/h): After turn signals blink five times.

When button **1** is pushed to the right or left and held slightly longer, the turn signals will only turn off automatically after the speed-dependent distance is covered.

ANTI-THEFT ALARM SYSTEM (DWA)

–with anti-theft alarm system (DWA) OE

Activation

- Turning on the ignition (➠ 58).
- Adapting DWA (➠ 71).
- Turning off the ignition (➠ 59).

» If the DWA is activated, the DWA is automatically activated after the ignition is turned off.

» Activation takes approximately 30 seconds to complete.

» Turn signals flash twice.

» Confirmation tone sounds twice (if programmed).

» DWA is armed.

–with central locking system OE

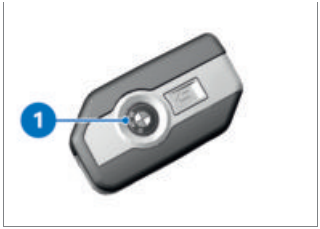
or

–with Keyless Ride OE

- Turning off the ignition (➠ 59).
- Press button **1** on the radio-operated key twice.

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

» Activation takes 30 seconds to complete.
» Turn signals flash twice.
» Confirmation tone sounds twice (if programmed).
» DWA is armed.◁



- To deactivate the tilt sensor (for example, if the motorcycle is being transported on a train and the train's movements could trigger the alarm signal), press the button **1** on the radio-operated key again during the activation phase.

» Turn signals flash three times.
» Confirmation tone sounds three times (if programmed).
» Tilt sensor is deactivated.

Alarm signal

The DWA alarm signal can be triggered by:

– Tilt alarm sensor
– Switch-on attempt with an ignition key.
– Disconnecting the DWA from the vehicle battery (DWA battery takes over the power supply – alarm tone only, hazard warning lights do not flash).
– with Keyless Ride OE

If the radio-operated key is within the reception area, any alarm signal triggered by the tilt alarm sensor is suppressed.◁

If the DWA battery is discharged, all functions remain operational; the only difference is that the alarm cannot be triggered if the system is disconnected from the vehicle battery.

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

A triggered alarm signal can be canceled at any time by pressing the button **2** of the radio-operated key without deactivating the DWA.

If an alarm signal has been triggered while the motorcycle was unattended, the rider is notified accordingly by an alarm tone sounding once when the ignition is turned on. The indicator light in the instrument cluster then signals the reason for the alarm signal for one minute.

Light signals on indicator light:

– 1 blink: Tilt sensor 1
– 2 blinks: Tilt sensor 2
– 3 blinks: Ignition is turned on using an unauthorized ignition key.
– 4 blinks: DWA disconnected from vehicle battery
– 5 blinks: Tilt sensor 3

Deactivation

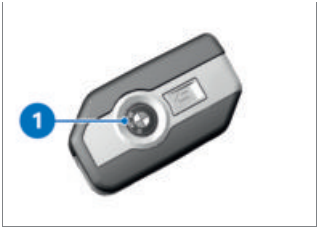
- Turning on the ignition (➠ 58).

» Turn signals flash once.
» Confirmation tone sounds once (if programmed).
» DWA is turned off.

– with central locking system OE

or

– with Keyless Ride OE



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

If the alarm function is deactivated using the radio-operated key and the ignition is not turned on then, the alarm function will be reactivated automatically after approximately 30 seconds if `Arm automatically` is turned on.

» Turn signals flash once.
» Ground light lights up briefly.
» Confirmation tone sounds once (if programmed).
» DWA is turned off.◁

Adapting DWA

- Turning on the ignition (➠ 58).
- Go to the Settings, Vehicle settings menu and select the Alarm system menu item.

» The following adjustments are available:

–Adapting Warning signal
–Turning Tilt sensor on and off
–Turning Arming tone on and off
–Turning Arm automatically on and off

Possible settings

Warning signal: Set increasing and decreasing or intermittent alarm tone.
Tilt sensor: Activate the tilt sensor to monitor the tilt of the vehicle. The DWA anti-theft alarm system responds, for example, in the event of attempted wheel theft or towing.

Deactivate the tilt sensor when transporting the vehicle to avoid triggering the DWA.

Arming tone: Confirmation alarm tone after activating/deactivating the DWA in addition to flashing turn indicators.
Arm automatically: Automatic activation of the alarm function when the ignition is turned off.

DYNAMIC TRACTION CONTROL (DTC)

Turning DTC function off and on

- Turning on the ignition (➠ 58).
- Go to the Settings, Assist menu, then select the DTC menu item.
- Deactivate DTC to turn off Dynamic Traction Control DTC until the next time the ignition is turned on.

 lights up.

- Activate DTC to turn on Dynamic Traction Control 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.

- More detailed information on the Dynamic Traction Control (DTC) can be found in the Technology in detail chapter (➠ 157).

ELECTRONIC CHASSIS AND SUSPENSION ADJUSTMENT (D-ESA)

Dynamic ESA adjustment options

The electronic Dynamic ESA chassis and suspension adjustment can automatically adapt your motorcycle to the vehicle load.
For more information on Dynamic ESA, see the "Technology in detail" chapter (➠ 159).

Adjusting damping

- Turning on the ignition (➠ 58).
- Go to the `Settings`, `Assist` menu, then select the `Damping` menu item.
- Select the desired damping setting.

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

The damping setting remains unchanged even after the ignition has been turned off.

Adjusting the load

- Starting the engine (➠ 137).
- Go to the `Settings`, `Assist` menu, then select the `Load` menu item.
- Select the desired load setting.

The load setting remains unchanged even after the ignition has been turned off.

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

The following message is displayed if no load setting is possible: `Action not possible. Engine needs to run.`

The following message is displayed if no load setting is possible due to excess speed: `Action not possible. Speed too high.`

RIDING MODE

Use

BMW Motorrad has developed riding scenarios for your vehicle from which you can select the one matching your situation:
–RAIN: Riding on wet roads.
–ROAD: Riding on dry roads.
–DYNAMIC: Brisk riding on dry roads.

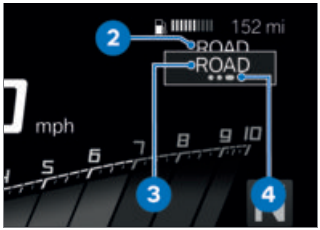
The optimum interaction between engine characteristics, chassis and suspension adjustment and DTC control is provided for each of these scenarios.

You can find more detailed information regarding the selectable riding modes in the "Technology in detail" chapter.

Setting riding mode

- Turning on the ignition (➠ 58).

- Press button **1**.



The active riding mode **2** fades into the background and is displayed in pop-up **3**. The guide **4** shows how many riding modes are available.

- Press button **1** repeatedly until the desired riding mode is shown.

» When the vehicle is at a standstill, the selected riding mode is activated after approx. 2 seconds.

» The new riding mode is activated while the vehicle is in motion under the following conditions:

– The throttle grip is in idle position.

– Brake is not engaged.

– Cruise control is deactivated.

» The riding mode that is set and its corresponding adjustments of engine characteristics and DTC control are retained even after the ignition is turned off.

CRUISE CONTROL

Displayed value while adjusting (Speed Limit Info not active)

The icon **1** for cruise control is displayed in the Pure Ride view and in the upper status line.

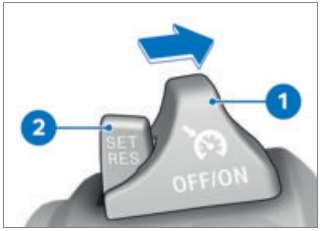
Displayed value while adjusting (Speed Limit Info active)

The icon **1** for cruise control is displayed in the Pure Ride view and in the upper status line.

Turning on cruise control

WARNING

Use of the cruise control in unfavorable road conditions
Accident hazard
- Do not use the cruise control in unfavorable road conditions, e.g. in snow, on ice, in torrential rain, in off-road use and on slippery surfaces.
- Do not use cruise control on roads with many curves.



- Slide switch **1** to the right.

» Button **2** is unlocked.

Saving the speed

- Briefly push button **1** forward.

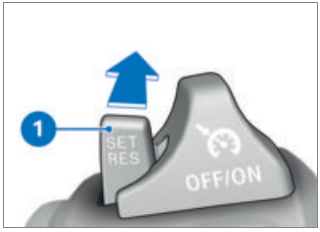
Adjustment range of cruise control (gear-dependent)
9…137 mph (15…220 km/h)

is displayed.

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

Accelerating

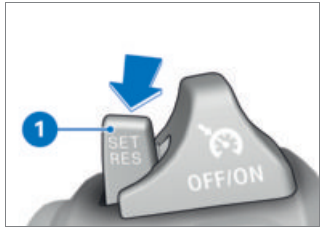
Depending on the set speed unit in the instrument cluster, the speed is increased or reduced in km/h or mph.



- Briefly push button **1** forward.
» The speed is increased by 1 mph (1.6 km/h) each time the button is pressed.
- Press button **1** forward and hold.
» The speed is increased in increments of 5 mph (8 km/h).
» If button **1** is no longer pressed, the speed reached is maintained and saved.

Decelerating

Depending on the set speed unit in the instrument cluster, the speed is increased or reduced in km/h or mph.



- Briefly press button **1** backward.
» The speed is decreased by 1 mph (1.6 km/h) each time the button is pressed.
- Press button **1** back and hold.
» The speed is decreased in increments of 5 mph (8 km/h).
» If button **1** is no longer pressed, the speed reached is maintained and saved.

Deactivating cruise control

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

If the clutch remains pulled for more than 1.5 seconds, cruise control is deactivated.

» A message is shown in the display.

Resuming previous cruising speed

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

Cruise control is not deactivated by accelerating. If you release the throttle grip, the motorcycle will decelerate only to the cruising speed saved in memory, even though you might have wanted to slow down to a lower speed.

is displayed.

Turning off cruise control

- Push switch **1** to the left.

» The system is turned off.

is hidden.

» Button **2** is locked.

HILL START CONTROL

Adjusting Hill Start Control Pro

- Turning on the ignition (➠ 58).
- Go to the `Settings`, `Assist` menu, then select the `HSC Pro` menu item.
- To turn on manual Hill Start Control Pro, select `Manual`.

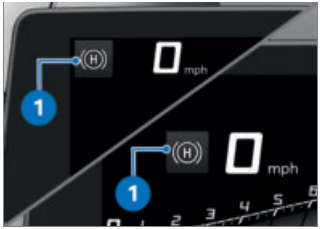
» Hill Start Control Pro can be activated by firmly applying the handbrake or footbrake lever.

- To turn off Hill Start Control Pro, select `Off`.

» Hill Start Control Pro is deactivated.

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

» Hill Start Control Pro can be activated by firmly applying the handbrake or footbrake lever.
» During brake actuation for approximately one second after the vehicle has come to a standstill and on a slope with at least a 3% gradient, Hill Start Control Pro is activated automatically.
» The selected setting is retained even after the ignition is turned off.



The icon **1** for Hill Start Control is displayed in the upper status line and in the Pure Ride view.

Operating Hill Start Control Pro

Requirement

Vehicle is at a standstill with the engine running.

ATTENTION

Failure of the drive-off assistant

Risk of accident

- Secure the vehicle through manual braking.

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.

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

- Apply brake 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 3%.

is displayed in green.

» Hill Start Control Pro is activated.

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

If Hill Start Control Pro was deactivated using the brake lever, then automatic Hill Start Control is deactivated for the next 13.1 ft (4 m).

is displayed in white.

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

Hill Start Control Pro is deactivated automatically when driving off.

disappears after the brake has been released completely.

» Hill Start Control Pro is deactivated.

- For more information on Hill Start Control Pro, see Technology in detail (➠ 164) chapter

REVERSER

Requirements

The following prerequisites must be fulfilled to use the reverser:
–Motorcycle is standing.
–Engine is running.
–Brake is actuated.
–Transmission is in Neutral.
–Side stand is folded in.
–Clutch is not pulled.

Reversing should be done without a passenger.
On downhill gradients, the reverser is not able to provide any holding function as is the case when a gear is engaged.
The reverser cannot be used on steep gradients.

Gradient for reverser
max 7 %

Activating reverser

- Press button **1**.

» Gear display **2** switches from N to R.
» The reverser can be used as soon as the R display stops blinking.

Using reverser

- Release brake.
- To reverse, press and hold starter button **1**.

Automatic cancellation

Reversing is canceled automatically:
–if the gradient is too steep
–if there is an obstacle
–if the reversing motor overheats
–if the side stand is folded out
–if the brake is applied

R will blink in the display if reversing is canceled.

Deactivating reverser

- Press button **1**.

» Gear display switches from R to N.

CENTRAL LOCKING SYSTEM

–with central locking system OE

Locking

- Turn on ignition and press button **1**.
- Alternative: Press the button **2** on the radio-operated key.

» The cases and the topcase are locked.
 is displayed.

Unlocking

- Turn on ignition and press button **1**.
- Alternative: Press the button **2** on the radio-operated key.

» The cases and the topcase are unlocked.

» Once a lock has been locked manually it subsequently has to be unlocked manually as well.

Emergency unlocking

If the central locking system can no longer be opened, you can open the cases and topcase manually using the ignition key:

- Opening a case (➠ 84).
- Opening topcase (➠ 85).

HEATING

Operating heated grips

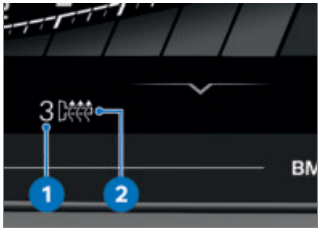
The heated grips option can only be activated when the engine is running.

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

- Starting the engine (➠ 137).
- Go to the `Settings`, `Heating` menu, then select the `Heated handlebar grips` menu item.

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.



The selected heating level **1** and the heated grip icon **2** are shown in the display.

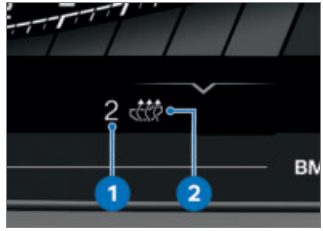
Operating the rider's seat heater

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

- Starting the engine (➠ 137).
- Go to the `Settings`, `Heating` menu, then select the `Seat heating` menu item.

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.



The selected heating level **1** and the seat heating icon **2** are shown in the display.

Operating the passenger seat heater

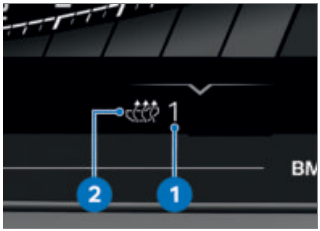
Seat heating can be activated only when the engine is running.

- Starting the engine (➠ 137).

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

The passenger seat has two-level heating. The second level is used for heating the seat quickly. It is advisable to switch back to the first level as soon as the seat is warm.

–**2** Switch in middle position: Heating off.
–**3** Switch in one-dot position: Low heating output.
–**4** Switch in two-dot position: High heating output.



The selected heating level **1** and the seat heating icon **2** are shown in the display.

WIND DEFLECTION WING

1 Wind deflection wing

WARNING

Adjusting the slipstream deflectors.
Accident hazard
- Only adjust the slipstream deflectors when the motorcycle is stationary.

By opening and closing the wind deflection wings, the flow of the air stream to the rider can be manipulated.

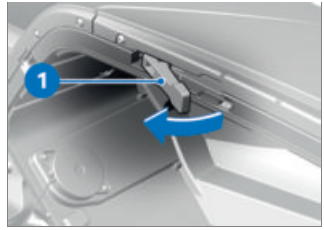
A Wind deflection wings closed: High level of wind and weather protection, maximum riding comfort.

B Wind deflection wings open: Increased flow of air stream to the rider, increased cooling effect at high outside temperatures.

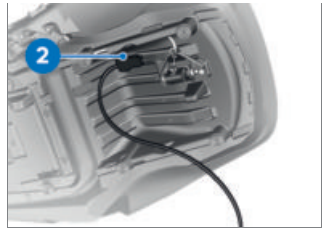
If the wind deflection wings are open and the speed is high, swirls having a negative impact on the riding comfort can occur in the area of the helmet.
BMW Motorrad recommends closing the wind deflection wings before riding at high speeds.

SEAT

Removing the seat

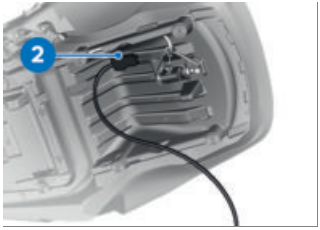


- Open left case.
- Actuate unlocking mechanism **1** and raise seat at rear.

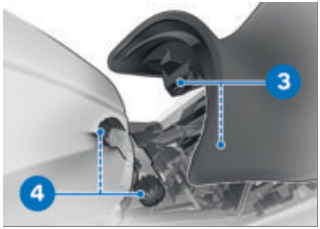


- Disconnect plug connection **2** of the seat heating and remove the seat.
- Place the seat, upholstered side down, on a clean surface.

Installing the seat



- Connect seat heating plug connection **2**.



- Position the seat with mounts **3** into the stop pads **4** on the left and right.
- Lower the rear of the seat and press the seat into the lock.

CASE

Opening a case

–with central locking system OE

- Open the central locking system if necessary.◁

- Turn the key in the case lock to the position indicated by the dot.

- Press the lock cylinder **1** downward.

» The release lever **2** pops open.

- Pull the release lever **2** all the way up and open the case lid.

Closing a case

- Pull release lever **2** all the way up.
- Close case lid and press down. Ensure that nothing gets trapped between the lid and case.

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.

- Press release lever **2** down until it snaps in.
- Turn key to **LOCK** position in case lock and remove.

Maximum payload

Observe maximum payload and maximum speed.
The following values apply to the combination described here:

Maximum speed when riding with a loaded case
max 81 mph (max 130 km/h)
Payload per case
max 22 lbs (max 10 kg)

TOPCASE

Opening topcase

–with central locking system OE

- Open the central locking system if necessary.◁

- Turn the key to the in the topcase lock to the position indicated by the dot.

- Press the lock cylinder **1** forward.

» The release lever **2** pops open.

- Pull the release lever all the way up and open the topcase lid.

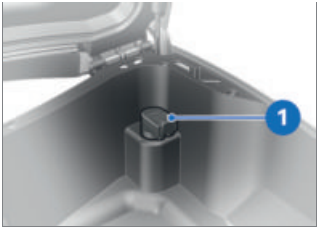
Closing topcase

- Pull release lever **2** all the way up.
- Close the topcase lid and hold it down. Ensure that nothing gets trapped between the lid and case.

The topcase can also be locked if the lock is in the **LOCK** position. Under such circumstances, ensure that the vehicle key is not in the topcase.

- Press release lever **2** down until it snaps in.
- Turn key in topcase lock to the **LOCK** position and remove.

USB charging socket



There is a USB-A charging socket **1** in the topcase that can be used to put electrical devices into operation while the ignition is turned on. To prevent damage if smartphones are used, BMW Motorrad recommends the use of the BMW Motorrad smartphone case.

Charge current

This is a 5 V USB-A charging socket providing a maximum charge current of 2.4 A (maximum charge power of 12 W).

Automatic shutoff
The USB-A charging socket is automatically switched off under the following conditions:
–If the battery voltage is too low to retain the starting capability of the vehicle.
–If the maximum loadability is exceeded.
–During the starting procedure.

Maximum load and maximum speed
Observe maximum payload and maximum speed.
The following values apply for the combination described here:

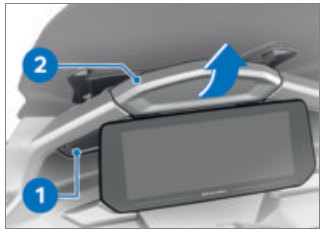
Maximum speed when riding with a loaded topcase
max 81 mph (max 130 km/h)
Payload of Topcase
max 22 lbs (max 10 kg)

CHARGING STORAGE COMPARTMENT

Operating the charging storage compartment

The charging storage compartment can be opened only if the windshield is in the upper final position.

- Adjusting the windshield (➠ 128).



- Press the button **1** and open the flap **2** in the arrow direction.
- To close, press the flap **2** firmly into the lock.

The charging storage compartment cannot be locked.

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 charg-

ing storage compartment during the summer.

Ventilation

Starting from a temperature of 86 °F (30 °C), a fan is turned on in the charging storage compartment to ensure sufficient air circulation. The fan switches off again as soon as the temperature in the charging storage compartment is below 77 °F (25 °C).

Charging a smartphone

Requirement

Ignition is turned on.

- Open charging storage compartment.

- Fold retainer **1** upwards.

- Connect the smartphone **2** with the USB-C charging socket **3** and store it in the charging storage compartment with the display in the forwards direction.

BMW Motorrad recommends the use of the BMW Motorrad USB cable for charging smartphones in the storage compartment. The space in the storage compartment may be insufficient for commercially available charging cables, which may be damaged.

- Fold retainer **1** downwards.
- Close flap **2**.

» The smartphone is fastened in place.

Notes about use

The storage compartment is suitable for smartphones with dimensions up to a maximum of 6.2 in (158 mm) x 3.1 in (78 mm) x 0.39 in (10 mm). For small mobile phones that might not be held securely by the holder, BMW Motorrad recommends the use of a BMW Motorrad smartphone case.

Charge current

This is a 5 V USB-C charging socket providing a maximum charge current of 1.5 A (maximum charge power of 7.5 W).

Automatic shutoff

The USB-C charging socket is automatically switched off under the following conditions:

– If the battery voltage is too low to retain the starting capability of the vehicle.
– If the maximum load capacity specified in the technical data is exceeded.
– During the starting procedure.

TFT DISPLAY

05

GENERAL NOTES

Warnings

WARNING

Operation of a smartphone while riding
Risk of accident
- Observe the valid road traffic regulations.
- Do not use any smartphone while riding. Applications that do not involve operation are exempt, such as phone calls using a hands-free system.

WARNING

Distraction from traffic conditions and loss of control
Risk of accident through the use of integrated information systems and communication devices during the journey
- Operate these systems or devices only if the traffic situation allows.
- If necessary, stop and operate the system or devices at a standstill.

Connectivity functions
Connectivity functions include media, telephony and navigation. Connectivity functions can be used if the TFT display is connected with a mobile end device and a helmet (➠ 103). You can find more information on the Connectivity functions at:
bmw-motorrad.com/connectivity

If the fuel tank is between the mobile end device and the TFT display, the Bluetooth connection may be restricted. BMW Motorrad recommends storing the mobile end device above the fuel tank (e.g. in the jacket pocket).

Depending on the mobile end device, the scope of the Connectivity functions may be limited.

BMW Motorrad Connected App
With the BMW Motorrad Connected App, you can call up information about the vehicle and usage. To use some features such as navigation, the app must be installed on the mobile end device and be connected to the TFT display. The app starts the route guid-

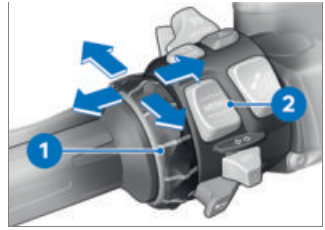
ance and adapts the navigation. In addition to the Bluetooth® connection, the Wi-Fi function must be activated on the mobile end device.

On some mobile devices, e.g. with operating system iOS, the BMW Motorrad Connected App must be called up before using.

Currentness of this manual
After the editorial deadline, there may be updates to the TFT display. For this reason, some aspects of your motorcycle may vary from the descriptions in this rider's manual. Updated information at: **bmw-motorrad.com/service**

PRINCIPLE

Operating elements



All content on the display is controlled by the Multi-Controller **1** and the rocker button MENU **2**.
Different functions are possible depending on the context.

Functions of the Multi-Controller

Turning Multi-Controller upwards:
–Move the cursor up in lists.
–Make settings.
–Increase volume.

Turning Multi-Controller downwards:
–Move the cursor down in lists.
–Make settings.
–Reduce volume.

Tilting the Multi-Controller to the left:
–Activate the function according to the operating feedback.
–Activate function to the left or back.

–After settings, return to menu view.
–In the menu view: move up one hierarchy level.
–In the My vehicle menu: Scroll to the next menu screen.
–In the Pure Ride view: Browse to the previous split screen display.

Tilting the Multi-Controller to the right:
–Activate the function according to the operating feedback.
–Confirm selection.
–Confirm settings.
–Browse to the next menu step.
–Scroll to right in lists.
–In the My vehicle menu: Scroll to the next menu screen.
–In the Pure Ride view: Browse to the next split screen display.

Rocker button MENU functions

Navigation instructions are displayed as a dialog if the Navigation menu has not been called up. Operation of the MENU rocker button is temporarily restricted.

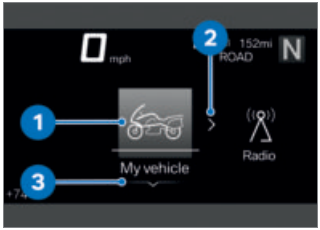
Briefly press the MENU up:
–In the menu view: move up one hierarchy level.
–In the Pure Ride view: Change display for rider info. status line.

MENU long press up:
–In the Menu view: Open Pure Ride view.

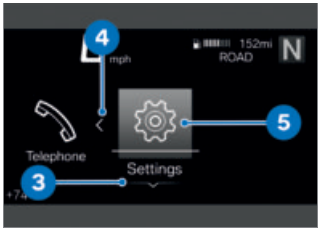
MENU short press down:
–Change a hierarchy level down.
–No function when lowest hierarchy level is reached.

MENU long press down:
–Return to the last menu, after a menu change has been previously carried out by long press of the rocker button MENU at the top.

Operating instructions in the main menu



The operating instructions indicate whether and which interactions are possible.

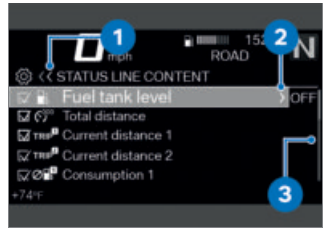


Meaning of the operating instructions:

–Operating instructions **1**: The left end has been reached.
–Operating instructions **2**: You can browse to the right.
–Operating instructions **3**: You can browse down.
–Operating instructions **4**: You can browse to the left.
–Operating instructions **5**: The right end has been reached.

Operating instructions in submenus

In addition to the operating instructions in the main menu, there are additional operating instructions in submenus.



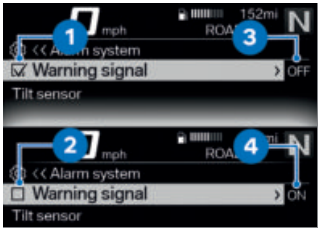
Meaning of the operating instructions:

–Operating instructions **1**: The current display is in a hierarchical menu. One icon indicates one submenu level. Two icons indicate two or more submenu levels. The color of the icon changes depending on whether there is an option to return to the top.
–Operating instructions **2**: You can go to another submenu level.
–Operating instructions **3**: There are more entries than can be displayed.

Show Pure Ride view

- Press and hold the top MENU rocker button.

Turning functions on and off

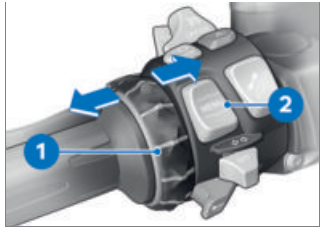


Some menu items are preceded by a box. The box indicates whether the function is turned on or off. Action icons after the menu items illustrate what is switched by briefly tilting the Multi-Controller to the right.

Examples for turning on and off:

–Icon **1** indicates that the function is turned on.
–Icon **2** indicates that the function is turned off.
–Icon **3** indicates that the function can be turned off.
–Icon **4** indicates that the function can be turned on.

Go to the menu



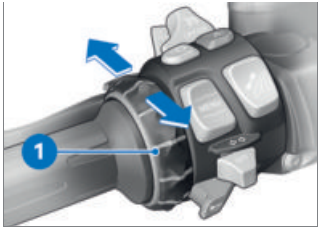
- Show Pure Ride view (➠ 96).
- Briefly press button **2** downward.

You can go to the following menus:

–My vehicle
–Radio
–Navigation
–Media
–Telephone
–Settings

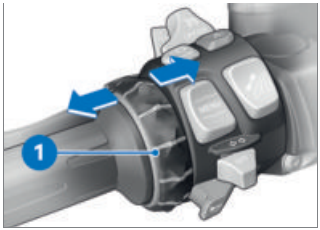
- Briefly press the Multi-Controller **1** to the right repeatedly until the desired menu item is highlighted.
- Briefly press button **2** downward.

Moving the cursor in lists



- Go to the menu (➠ 96).
- To move the cursor down in lists, turn the Multi-Controller **1** down until the desired entry is highlighted.
- To move the cursor up in lists, turn the Multi-Controller **1** up until the desired entry is highlighted.

Confirming the selection



- Select desired entry.
- Press the Multi-Controller switch **1** briefly to the right.

Go to the last menu used

- In Pure Ride view: Press and hold the bottom of the MENU rocker button.

» You go to the last used menu, which was exited by pressing and holding upwards.

Changing the display for rider info. status line

Requirement

The vehicle is stationary. The Pure Ride view is displayed.

- Turning on the ignition (➠ 58).

» All of the information necessary for operating the vehicle on public roads is made available from the on-board computer (e.g. TRIP 1) and the travel on-board computer (e.g. TRIP 2) in the TFT display. The information can be displayed in the upper status line.

» In addition, information from the Tire Pressure Monitor can be displayed.

- Selecting content of upper status line (➠ 98).

- Press and hold button **1** to display the Pure Ride view.
- Press button **1** briefly to select the value in the upper status line **2**.

The following values can be displayed:

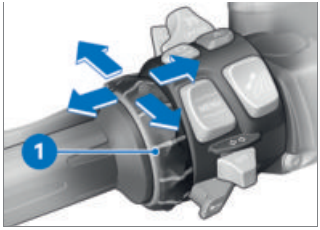
- Total distance
- Current distance 1
- Current distance 2
- Consumption 1 (average)
- Consumption 2 (average)
- Riding time 1
- Riding time 2
- Break 1
- Break 2
- Speed 1 (average)
- Speed 2 (average)
- Tire pressure
- Fuel tank level
- Range

Selecting content of upper status line

- Go to menu Settings, Display, Status line content.
- Turn on desired displays.

» It is possible to change between the selected displays in the upper status line. If no displays are selected, only the range is shown.

Making settings



- Select desired settings menu and confirm.
- Turn the Multi-Controller **1** down until the desired setting is highlighted.
- If operating instructions are present, tilt the Multi-Controller **1** to the right.
- If operating instructions are present, tilt the Multi-Controller **1** to the left.

» The setting is saved.

Switching Speed Limit Info on or off

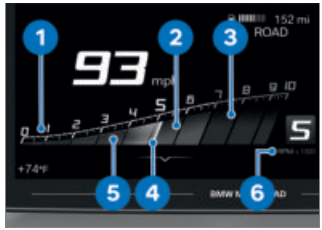
Requirement

The vehicle is connected to a compatible mobile end device. The BMW Motorrad Connected app is installed on the mobile end device.

- `Speed Limit Info` displays the currently permitted maximum speed insofar as this information is provided by the editor of the maps in the navigation system.
- Call up menu `Settings`, `Display`.
- Switch `Speed Limit Info` on or off.

PURE RIDE VIEW

Tachometer



1 Scale
2 Low engine speed range
3 High / red engine speed range
4 Needle
5 Drag pointer
6 Unit for tachometer: 1000 RPM

The red engine speed range changes depending on the coolant temperature: The colder the engine, the lower the speed at which the red engine speed range begins. The warmer the engine, the higher the speed at which the red engine speed range begins. When the operating temperature has been reached, the red

engine speed range display will no longer change.

Range

The range **1** indicates how far you can ride with the remaining fuel. This distance is calculated based on average consumption and the remaining fuel quantity.

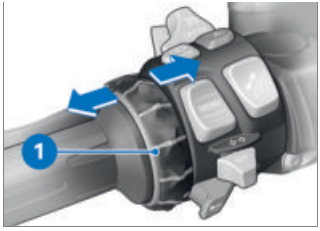
– When the vehicle is propped on its side stand, the resulting angle of inclination means that the sensor cannot register the fuel quantity correctly. For this reason, the range is only recalculated when the side stand is folded in.
– The range is output together with a warning after the fuel reserve level is reached.
– After refueling, the range is recalculated if the fuel quantity is greater than the fuel reserve.
– The calculated range is only an approximate figure.

Upshift recommendation

The upshift recommendation in the Pure Ride **1** view or in the status line **2** signals the best time for an upshift from an economical perspective.

SPLIT SCREEN

Turning on the split screen and selecting a display



- Show Pure Ride view (➠ 96).
- Briefly press the Multi-Controller **1** to the left or right repeatedly until the desired display appears.
- Alternative: Press the Multi-Controller **1** to the right and hold it to return to the last

selected display in the split screen.

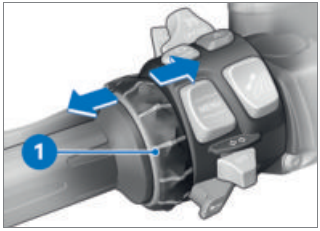
The following displays can be selected:

–ONBOARD COMPUTER
–TRIP COMPUTER
–Navigation
–MEDIA

Depending on the selected audio source, MEDIA or RADIO can be displayed.

» The selected display remains even after the ignition is turned off.

Turning off split screen



- Show Pure Ride view (➠ 96).
- Briefly press the Multi-Controller **1** repeatedly until the split screen disappears.
- Alternative: Press the Multi-Controller **1** to the left and hold it.

GENERAL SETTINGS

Adjusting the volume

- Connect the rider's helmet and the passenger helmet (➠ 104).
- Increasing the volume: turn Multi-Controller upwards.
- Reducing the volume: turn Multi-Controller downwards.
- Mute: turn Multi-Controller all the way down.

» When set to Mute, media playback is paused.

Setting the date

- Turning on the ignition (➠ 58).
- Call up menu Settings, System settings, Date and time, Set date.
- Set Day, Month, and Year.
- Confirm setting.

Adjusting the date format

- Call up menu Settings, System settings, Date and time, Date format.
- Select desired setting.
- Confirm setting.

Setting the clock

- Turning on the ignition (➠ 58).
- Call up menu Settings, System settings, Date and time, Set time.
- Set Hour and Minute.

Setting the time format

- Call up menu Settings, System settings, Date and time, Time format.
- Select desired setting.
- Confirm setting.

Setting the units of measurement

- Call up menu Settings, System settings, Units.

The following units of measurement can be set:

–Pressure
–Temperature
–Consumption

Setting the language

- Call up menu Settings, System settings, Language.

The following languages can be set:

–German
–English (UK)
–English (US)
–Spanish
–French
–Italian
–Dutch
–Polish
–Portuguese (Brazil)
–Portuguese (Portugal)
–Turkish
–Russian
–Ukrainian
–Chinese
–Japanese
–Korean
–Thai

Adjusting brightness

- Go to Settings, Display, Brightness menu.
- Adjust brightness.

» The brightness of the display is dimmed to the set value if ambient brightness falls below a defined value.

» If the display of the TFT display is faulty, the troubleshooting chart in the Technical Data chapter may provide assistance. (➠ 209)

Resetting all settings

- All settings in the Settings menu can be reset to the factory settings.
- Call up menu Settings.
- Select Reset all and confirm.

The settings of the following menus are reset:

–Vehicle settings
–System settings
–Connections
–Display
–Information

» Existing Bluetooth connections are not deleted.

BLUETOOTH®

Short-range radio technology
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 Bluetooth radio standard that has been incorrectly implemented.
- By nearby Bluetooth-capable devices.
- Shielding by metals or bodies.

Pairing
Two Bluetooth devices have to recognize each other 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.

On some mobile devices, e.g. with operating system iOS, the BMW Motorrad Connected App must be called up before using.

During the pairing process, the TFT display searches for other Bluetooth-compatible devices within its reception range. The conditions that have to be satisfied before the speaker can be paired with another device are as follows:
- The Bluetooth function of the device must be activated
- The device must be "visible" to others
- Other Bluetooth-capable devices that are not to be connected must be OFF (e.g. mobile phones and navigation systems).

Please consult the operating instructions for your communication system.

Pairing

- Call up menu `Settings`, `Connections`.

» Bluetooth connections can be established, managed, and deleted in the `CONNECTIONS` menu. The following Bluetooth connections are displayed:

–`Mobile device`
–`Rider's helmet`
–`Passenger helm.`

The connection status for mobile end devices is displayed.

Connecting a mobile end device

- Pairing (➠ 104).
- Activate the Bluetooth function of the mobile end device (see operating instructions for the mobile end device).
- Select `Mobile device` and confirm.
- Select `Pair new mobile device` and confirm.

Mobile end devices are searched for.


blinks in the lower status line during pairing.

Visible mobile end devices are displayed.

- Select the mobile end device and confirm.
- Observe the instructions for the mobile end device.
- Confirm that the codes match.

» The connection is established and the connection status is updated.

» If the connection cannot be established, the troubleshooting chart in the Technical data chapter may provide assistance. (➠ 208)

» Depending on the mobile end device, telephone data is transferred to the vehicle automatically.

» Telephone data (➠ 113)

» If the phone book is not displayed, the troubleshooting chart in the Technical data chapter may provide assistance. (➠ 210)

» If the Bluetooth connection does not work as expected, the troubleshooting chart in the Technical data chapter may provide assistance. (➠ 209)

Connect the rider's helmet and the passenger helmet

- Pairing (➠ 104).
- Select `Rider's helmet` or `Passenger helm.` and confirm.

- Show the communication system of the helmet.
- Select `Pair new rider's helmet` or `Pair new passeng. helmet` and confirm.

Helmets are searched for.


blinks in the lower status line during pairing.

Visible helmets are displayed.

- Select helmet and confirm.

» The connection is established and the connection status is updated.

» If the connection cannot be established, the troubleshooting chart in the Technical data chapter may provide assistance. (➠ 208)

» If the Bluetooth connection does not work as expected, the troubleshooting chart in the Technical data chapter may provide assistance. (➠ 209)

Deleting connections

- Call up menu `Settings`, `Connections`.
- Select `Delete connections`.
- To delete an individual connection, select the connection and confirm.
- To delete all connections, select `Delete all connections` and confirm.

WI-FI

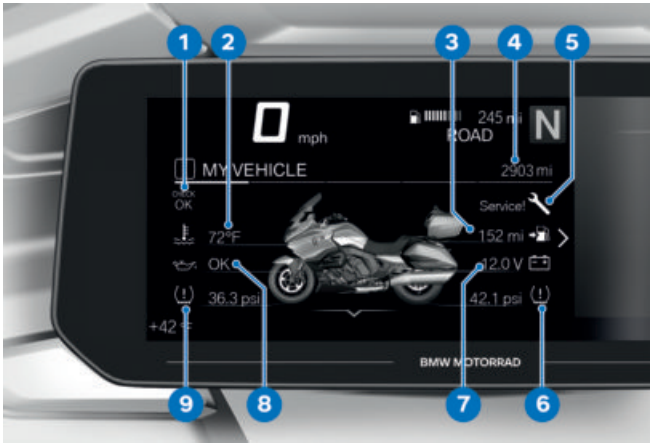
WiFi connection

A WiFi connection is used to transmit the map view from a mobile phone to the TFT display. To enable the full scope of function, WiFi must be enabled on the mobile phone. More information on activating WiFi can be found in the operating instructions of the mobile phone.

Depending on local conditions, such as a high number of WiFi networks, temporary limitations and connection dropouts can occur.

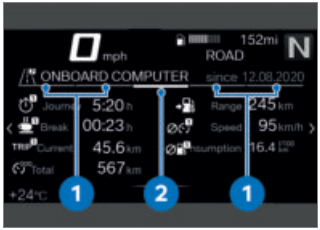
MY VEHICLE

START SCREEN



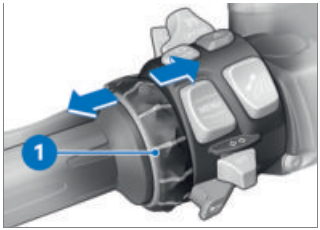
1 Check Control display Layout (➠ 27)
2 Coolant temperature (➠ 41)
3 Range (➠ 100)
4 Odometer
5 Service display (➠ 54)
6 Rear tire pressure (➠ 43)
7 Voltage of the vehicle electrical system (➠ 190)
8 Engine oil level (➠ 40)
9 Front tire pressure (➠ 43)

Operating instructions



–Operating instructions **1**: Tabs that show how far to the left or right you can browse.
–Operating instructions **2**: Tab that shows the position of the current menu screen.

Browsing through menu screens



- Go to the My vehicle menu.
- To browse to the right, briefly push the Multi-Controller **1** to the right.
- To browse to the left, briefly push the Multi-Controller **1** to the left.

The following displays are included in the My vehicle menu:
–MY VEHICLE
–ONBOARD COMPUTER
–TRIP COMPUTER
–TIRE PRESSURE
–SERVICE REQUIREMENTS
–CHECK CONTROL MESSAGE (if present)

- Further information on the Check Control messages can be found in the Displays (➠ 27) chapter.

Check-Control messages are dynamically added to the menu screens in the My vehicle menu as additional tabs.

On-board computer and travel on-board computer

The ONBOARD COMPUTER and TRIP COMPUTER menu windows show the vehicle and journey data, e.g. average values.

Service requirement

If the time remaining until the next service is less than a month, or if the next service is due within 620 mi (1000 km), a white Check Control message is displayed.

TRIP COMPUTER

Calling up the on-board computer

- Go to My vehicle menu.
- Scroll to the right until the ONBOARD COMPUTER menu panel is displayed.

» As an alternative, the on-board computer can also be displayed on the split screen.

- Turning on the split screen and selecting a display (➠ 100).

Resetting the on-board computer

- Calling up the on-board computer (➠ 109).
- Press MENU rocker button down.
- Select Reset all values or Reset individual values and confirm.

The following values can be reset individually:


Break


Journey


Current


Speed


Consump.

Calling up the travel on-board computer

- Calling up the on-board computer (➠ 109).
- Scroll to the right until the TRIP COMPUTER menu panel is displayed.

» As an alternative, the travel on-board computer can also be displayed on the split screen.

- Turning on the split screen and selecting a display (➠ 100).

Resetting the travel on-board computer

- Calling up the travel on-board computer (➠ 109).
- Press MENU rocker button down.
- Select Automatic reset or Reset all values and confirm.

» If Automatic reset is selected, the travel on-board computer is automatically reset if at least 6 hours have passed since the ignition was switched off and the date has changed.

NAVIGATION

Warnings

WARNING

Operation of a smartphone while riding
Risk of accident
- Observe the valid road traffic regulations.
- Do not use any smartphone while riding. Applications that do not involve operation are exempt, such as phone calls using a hands-free system.

WARNING

Distraction from traffic conditions and loss of control
Risk of accident through the use of integrated information systems and communication devices during the journey
- Operate these systems or devices only if the traffic situation allows.
- If necessary, stop and operate the system or devices at a standstill.

Prerequisite
The vehicle is connected to a compatible mobile end device via Bluetooth.

The BMW Motorrad Connected App is installed on the mobile end device.

On some mobile devices, e.g. with operating system iOS, the BMW Motorrad Connected App must be called up before using.

Show map view
Requirement
WiFi is activated on the mobile end device paired via Bluetooth.

- Connecting a mobile end device (➠ 104).
- Call up the BMW Motorrad Connected app.
- Go to menu `Navigation`.

If the `NAVIGATION` view has been selected in the split screen and you go to the `NAVIGATION` menu at the same time, the split screen view is ended automatically, and the navigation is displayed on the entire TFT display.

Entering destination address

- Connecting a mobile end device (➠ 104).
- Go to the BMW Motorrad Connected app and start the guidance.
- Go to the Navigation menu.

» Active destination guidance is displayed.

–If Wi-Fi is not activated on the mobile end device, route guidance is displayed as an arrow view.

» If the active destination guidance is not displayed, the troubleshooting chart in the Technical data chapter may provide assistance. (➠ 210)

Select destination from most recent destinations

- Call up menu Navigation, Recent destinations.
- Select destination and confirm.
- Select Start route guidance.

Select destination from favorites

- The FAVORITES menu shows all destinations that have been saved as a favorite in the BMW Motorrad Connected app. It is not possible to create new favorites on the TFT display.
- Go to the Navigation, Favorites menu.
- Select destination and confirm.
- Select Start guidance.

Entering special destinations

- Special destinations, e.g. landmarks, can be displayed on the map.
- Call up menu Navigation, POIs.

The following locations can be selected:

–At current location
–At destination
–Along the route

- Select in which location you want to search for special destinations.

The following point of interest can be selected:

–Filling station

- Select special destination and confirm.
- Select Start route guidance and confirm.

Specifying route criteria

- Call up menu Navigation, Route criteria.

The following criteria can be selected:

–Route type
–Avoid

- Select desired Route type.
- Turn desired Avoid on or off.

The number of enabled avoidances is displayed in brackets.

Ending route guidance

- Call up menu Navigation, Active route guidance.
- Select End route guidance and confirm.

Switching spoken instructions on or off

- Connect the rider's helmet and the passenger helmet (➠ 104).
- The navigation can be read out by a computer voice. To do this, the Spoken instructions must be turned on.
- Call up menu Navigation, Active route guidance.
- Turn Spoken instructions on or off.

Repeating the last spoken instruction

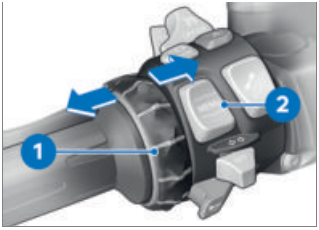
- Call up menu Navigation, Active route guidance.
- Select Current instruction and confirm.

MEDIA

Prerequisite

The vehicle is connected to a compatible mobile end device and a compatible helmet.

Controlling audio playback



- Go to the Media menu.

BMW Motorrad recommends setting the volume for media and conversations via mobile end devices to the maximum before starting a journey.

- Adjusting the volume (➠ 101).
- Selecting next title in the player: Briefly tilt the Multi-Controller **1** to the right.
- Select last title or beginning of the current title in the player: Briefly tilt the Multi-Controller **1** to the left.
- Go to context menu: Press button **2** downward.

Depending on the mobile end device, the scope of the Connectivity functions may be limited.

» The following functions can be used in the context menu:
– Playback or Pause.
– For search and playback, select the category Now play-

ing, All artists, All albums or All tracks.
–Select Playlists.

In the Audio settings submenu, you can adjust the following settings:
–Turn Shuffle on or off.
–Repeat: Select Off, One (current title) or All.
–Select Output device.
–Select Sound profile.
–Adjust Equalizer.

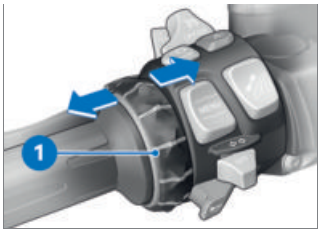
» If the playlist is not displayed on the TFT display, the troubleshooting chart in the Technical data chapter may provide assistance. (➠ 210)

TELEPHONE

Prerequisite

The vehicle is connected to a compatible mobile end device and a compatible helmet.

Making a phone call



• Go to the Telephone menu.

When a call comes in, a pop-up opens.

• Accepting a call: Tilt the Multi-Controller **1** to the right.
• Rejecting a call: Tilt the Multi-Controller **1** to the left.
• Ending a call: Tilt the Multi-Controller **1** to the left.

Mute

The microphone in the helmet can be muted during active conversations.

Conversations with multiple users

A second telephone call can be accepted during a conversation. The first conversation will be put on hold. The number of active telephone calls is displayed in the Telephone menu. It is possible to switch between two conversations.

Telephone data

Depending on the mobile end device, telephone data is transferred to the vehicle automatically after pairing (➠ 103).
Phone book: List of contacts saved in the mobile end device
Call list: List of telephone calls with the mobile end device
Favorites: List of favorites saved in the mobile end device

PROGRAMMABLE MEMORY BUTTONS

Operating the programmable memory buttons

You can assign individual functions to the programmable memory buttons.

- Press a button lightly.

» The assigned function is shown in the TFT display.

- Press a button firmly.

» The assigned function is executed.

Assigning functions

- In the Settings, System settings, Favorite button menu, select.
- Select the desired programmable memory button from Favorite button 1 to Favorite button 4.
- Select the desired function or Not assigned.

» The function is assigned to the respective programmable memory button.

DISPLAYING SOFTWARE VERSION

- Call up menu Settings, Information, Software version.

DISPLAYING LICENSE INFORMATION

- Call up menu Settings, Information, Licenses.

AUDIO SYSTEM

06

RADIO

Starting

- Turning on the ignition (➠ 58).

After the ignition is switched on, the radio menu will be available after a short time.

Turning the radio on and off

- Call up `Radio` menu and turn `Radio` on or off.

» If the radio is turned off, `Radio off` is displayed in the lower status line.

Selecting a source

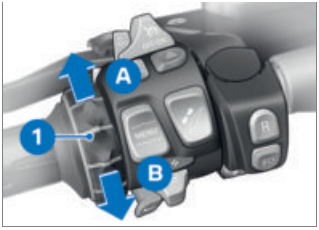
- Select the `Source` menu. Select `Favorites`, `AM`, `FM` or `SiriusXM`. For the `AM` and `FM` wave range, the `HD radio` option exists (availability may vary by country).

Selecting a station

- Selecting a source (➠ 118).
- Select the `FM stations` menu.

For each selectable source, there is a specific station menu.

For HD Radio stations, the subprograms can be selected using the station list.

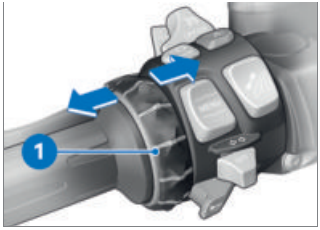


- Turn the Multi-Controller **1** in the **A** or **B** direction to browse through the stations.
- Press the Multi-Controller to the right to select the desired station.

Selecting frequency

- Go to `Source` menu, select `AM` or `FM`.
- In the `AM options` or `FM options` menu, select the `Frequency` setting using the menu item `Search selection`.
- Switch to the player.

For HD Radio stations, the subprograms can be selected within a frequency range.

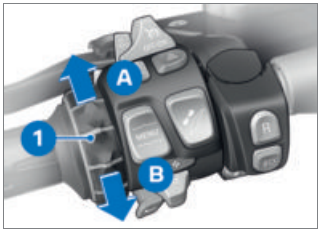


- Briefly press Multi-Controller **1** to the left or right to set the desired frequency using the frequency band.

Saving a station

- Select a station or frequency from the frequency band.
- Press Multi-Controller to the right.

» The station list opens.



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

» The current assignment of the memory location is displayed.

» If a station is already saved in the selected memory location, a message opens. The following selection options are available:

- Select `Cancel` to refrain from saving the selected station.
- Select `Save` in order to overwrite the memory location.

» The station list reopens.

Favorites list

Selected stations or frequencies can be added as favorites. A total of up to 20 favorites can be saved.

There are two ways to add favorites:

Version 1

- Selecting a station (➠ 118).
- Select the `Add as favorite` menu item.

» The previously selected station appears on the Favorites list.

- Press Multi-Controller to the right.

» The selected station has been saved as a favorite.

Version 2

- Selecting a station (➠ 118).
- Press Multi-Controller to the right once more.

» The Favorites list opens.

- Press Multi-Controller to the right once more.

» The selected station has been saved as a favorite.

» The view automatically switches back to the stations list.

Deleting a Favorites list
Requirement
A Favorites list with at least one entry exists.

- Select `Delete list of favorites` at the bottom end of the Favorites list.

» A dialog opens.
- Confirm deletion.

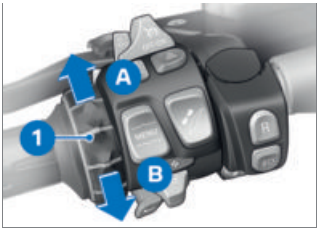
» The Favorites list is deleted.

AUDIO SETTINGS

Loudspeakers and Bluetooth
The audio system plays back sound through either the vehicle's speakers, an output device connected by Bluetooth or the helmet. Should the Bluetooth function not be offered in certain countries, then audio playback is only possible via the loudspeakers.

If a BMW Motorrad communication system with Bluetooth radio standard 2.0 or higher is connected, the volume control can be operated by Multi-Controller (➠ 124). If devices are paired that are not compatible with Bluetooth radio standard 2.0 or higher, the volume cannot be controlled by Multi-Controller.

Adjusting the volume



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

» The volume is automatically set for the selected output device.

Selecting an output device
- Call up the `Media`, `Audio settings` menu and select `Output device`.

» The following settings are available:
– `Speakers`: speaker for audio playback selected.
– `Helmet`: helmet or other Bluetooth-capable output device for audio playback is selected.

» The default setting is `Speakers`.

Selecting a sound profile

- Go to the Radio, Audio settings menu and select the Sound profile menu item.

» The following settings are available:

–Bass-Boost
–Treble-Boost
–Voice
–Studio
–Balanced

» The default setting is Bass-Boost. All sound profiles take effect only if Speakers is selected.

» For an optimal sound experience without a helmet, the Studio sound profile should be selected. All other sound profiles are optimized for playback while a helmet is worn.

Adjusting sound settings

- Go to the Radio, Audio settings menu, then select the Equalizer menu item.

» The following settings are available:

–Treble: Reduce (-1...-5) or increase (+1...+5) treble
–Bass: Reduce (-1...-5) or increase (+1...+5) bass
–Volume control: Turn off speed-dependent volume boost (1) or select a level (2...4).

- Select the desired menu item, make the adjustment and exit the menu.

» The sound settings take effect only if Speakers is selected as the output device.

Volume and speed

The audio system can automatically adapt the volume to the speed of the motorcycle. The rate at which the volume increases in relation to vehicle speed can be set on four levels. Level 4 corresponds to maximum increase. If level 1 is selected, the volume boost feature is deactivated.
Automatic volume adjustment only functions if Speakers is selected as the output device.

PLAYER

Shown in display

The following information is displayed by the view in the TFT display (depending on country):

–Selected source (➠ 118).
–Transmitter (➠ 118) or (➠ 122).
–Frequency
–Artist
–Title
–Frequency band

Changing the station or frequency

Requirement

A frequency can be selected only in the AM or FM frequency bands, and Frequency must be selected in the options.

- Selecting a source (➠ 118).
- Press the Multi-Controller to the right or left to select the desired station or the desired frequency.

In order to be able to change the frequency, the Frequencymenu item must be selected in the AM options or FM options menu.

SATELLITE RADIO

Availability

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

Subscribing to a station

To listen to a station, it must first be subscribed to. Subscribing to a station can generate costs not borne by BMW Motorrad.

You can find more information on the available transmitters at **siriusxm.com**.

Activating stations

A station is activated by phone by calling the phone number 1-888-539-7474. In addition, the Radio ID is required.

Calling up information

The following list entry is displayed under Radio, SiriusXM information: Radio ID: XXXXXXXXXXX For support, please contact SiriusXM Customer Care at: 1-888-539-7474

Signal strength

If the signal is not strong enough, SiriusXM No signal. is displayed.

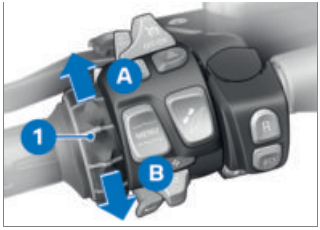
Selecting a category and station

- If the category needs to be changed, go to the SiriusXM station menu and select Category.

» The following options are available for selection:

–All categories: Shows all stations subscribed to
–Category: For example, rock
–Unsub. channel: Shows all stations not subscribed to

- Select the desired station.

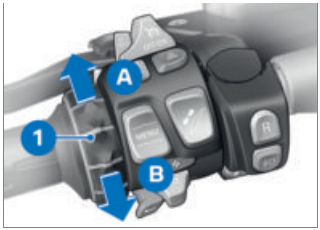


- Turn the Multi-Controller **1** in the **A** or **B** direction to select the desired station from the selected category.

Saving a station

- Selecting a category and station (➠ 122).
- Press the Multi-Controller to the right to select a station.
- Press the Multi-Controller to the right once more and select `Add as favorite`.

» The Favorites list opens.



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

» The current assignment of the memory location is displayed.

» If a station is already saved in the selected memory location, a message opens. The following selection options are available:

- Select `Cancel` to refrain from saving the selected station.
- Select `Save` in order to overwrite the memory location.

» The Favorites list closes automatically and redirects the user to the previous view.

Playing stored station

Requirement

`Favorites` must be selected as `Source`.

- Select the `Favorites` menu item.

» The Favorites list is displayed.

- Press the Multi-Controller to the right to select the desired station.

System messages

Under certain circumstances, the following messages are shown:

`SiriusXM subscription updated.`
The subscription is updated.

`SiriusXM Channel not subscribed.`
The station has not been subscribed to.

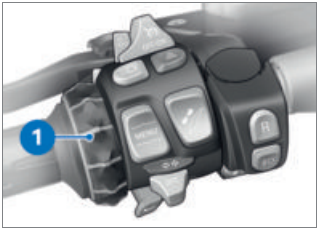
SiriusXM No signal.
The SiriusXM service was interrupted due to a weak signal.

HD RADIO EMPFANG

The signal strength of HD Radio stations may vary depending on the location. If the digital signal is not strong enough, there will be an automatic switchover to the analog signal. During the switchover, a short interruption may occur. If AM has been selected as the source, significantly inferior sound quality can be heard after the switchover.
As soon as the digital signal is available again, there will be another automatic switchover back to the HD Radio station.

AUDIO PLAYBACK VIA HELMET

Connecting the rider's helmet



If a rider's helmet with BMW Motorrad communication system is connected using Bluetooth® radio standard 2.0:
– The volume of the helmet speaker 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 with the Multi-Controller.

SETTING

07

MIRRORS

Adjusting the mirrors

- Move mirror into desired position by pressing it lightly.

WINDSHIELD

Adjusting the windshield

- Turning on the ignition (➠ 58).

» When riding off, the windshield automatically moves to its last position before the ignition was turned off.

- Press top of button **1** to raise the windshield.
- Press bottom of button **1** to lower the windshield.
- Turning off the ignition (➠ 59).

» The windshield automatically moves to the lower end position.

- Ensure clearance of the windshield.

Windshield does not automatically move to the lower end position:

- Turning on the ignition (➠ 58).
- Move windshield to the upper and lower end positions using button **1**.
- Turning off the ignition (➠ 59).

» The adjustment range 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 jam protection cannot be ensured if a windshield that has not been approved by BMW Motorrad has been installed.

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

CLUTCH

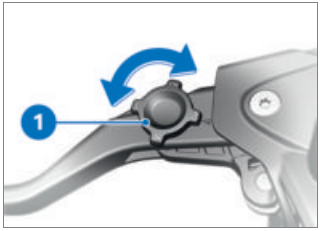
Adjusting the clutch lever

WARNING

Modified position of the clutch fluid reservoir
Air in the clutch system
- Do not turn the handlebar fitting on the handlebar.

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.

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

» Adjustment options:

–Position 1: Minimum distance between handlebar grip and clutch lever
–Position 4: Maximum distance between handlebar grip and clutch lever

BRAKES

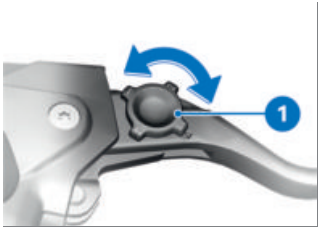
Setting the brake lever

WARNING

Modified position of the brake fluid reservoir
Air in the brake system
- Do not turn the handlebar fitting on the handlebar.

WARNING

Adjusting the brake lever while driving
Risk of accident
- Do not attempt to adjust the brake lever unless the motorcycle is at a standstill.



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

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

» Adjustment options:

– Position 1: Minimum distance between handlebar grip and brake lever
– Position 4: Maximum distance between handlebar grip and brake lever

RIDING

08

SAFETY INSTRUCTIONS

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.

WARNING

Seizure of loose textile fabrics, luggage items or straps in open running rotating vehicle parts (wheels, prop shaft)

Risk of accident
- Make sure that no loosely worn textile fabrics can get caught in open, running and rotating vehicle parts.
- Keep luggage items as well as tension belts and lashing straps away from open, running and rotating vehicle parts.

Correct loading

WARNING

Reduced riding stability caused by overloading and uneven loading

Accident hazard
- Do not exceed the gross weight limit and observe the loading information.

- 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 with cases; see also the Chapter "Operation".
- Observe the maximum payload and maximum speed with topcase; see also the Chapter "Operation".

Speed

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

–Unevenly distributed load
–Loose clothing
–Insufficient tire pressure
–Tire tread in poor condition
–Etc.

Running board

There is not a footbrake lever on the running board!
Refer to Chapter Technology in Detail (➠ 154) for more information about the partial integral brake.

As it is only possible to brake using the brake lever, observe the maximum speed when riding with running boards.

Risk of poisoning

Exhaust gas contains 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.

WARNING

Inhalation of vapors that are harmful to health
Damage to health
- Do not inhale vapors from operating fluids and plastics.
- Only use the vehicle outdoors.

Risk of burning

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.

WARNING

Opening the radiator cap
Risk of burning
- Do not open the radiator cap when it is hot.
- Check the coolant level exclusively at the expansion tank and top up if necessary.

Catalytic converter
There is a danger of overheating and damage if misfiring causes unburned fuel to enter the catalytic converter.
For this reason, observe the following points:
– Do not run the fuel tank dry.
– Do not run the engine with the spark-plug cap removed.
– Stop the engine immediately if it misfires.
– Use unleaded fuel only.
– Comply with all specified maintenance intervals.

ATTENTION

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

Danger of overheating

ATTENTION

Engine idling for a lengthy period while at a standstill
Overheating due to insufficient cooling; in extreme cases vehicle fire
- Do not allow the engine to idle unnecessarily.
- After starting, ride off immediately.

Manipulation

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 CHECK

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

Always before riding off

–Check operation of the brake system (➠ 174).
–Check operation of the lighting and signal system.
–Check clutch function (➠ 179).
–Check tire tread depth (➠ 181).
–Check tire pressure (➠ 180).
–Check that luggage is securely held in place.

At every third refueling stop

–Check engine oil level (➠ 172).
–Check front brake pad thickness (➠ 174).
–Check rear brake pad thickness (➠ 175).
–Check front brake fluid level (➠ 176).
–Check rear brake fluid level (➠ 178).

STARTING

Starting the engine

- Turning on the ignition (➠ 58).

» Pre-Ride-Check is carried out. (➠ 138)
» ABS self-diagnosis is performed. (➠ 138)
» DTC self-diagnosis is performed. (➠ 139)

- Engage Neutral, or pull back the clutch lever if a gear is engaged.

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 start and at low temperatures: Pull clutch and open throttle grip slightly.

- Press starter button **1**.

The starting procedure is automatically canceled if the battery voltage is too low. Recharge the battery before you attempt to start the engine again, or use jump-starting. More detailed information can be found in the Maintenance chapter under Jump-starting.

» Engine starts.

» Consult the troubleshooting chart if the engine refuses to start. (➠ 208)

Pre-Ride-Check
After the ignition is turned on, the instrument cluster performs a test of the indicator and warning lights – what we call the "Pre-Ride-Check". Starting the engine before the test is completed will cancel the remainder of the test.

Phase 1
All indicator and warning lights are turned on.
After a longer standstill of the vehicle, an animation is displayed during the system start.

Phase 2
The general warning light changes from red to yellow.

Phase 3
All of the indicator and warning lights that have been turned on are turned off in reverse order.

If one of the indicator and warning lights was not turned on:
- Have the malfunction corrected as soon as possible at a specialist workshop, preferably an authorized BMW Motorrad retailer.

ABS self-diagnosis
The self-diagnosis routine checks whether the BMW Motorrad Integral ABS Pro is ready for operation. The self-diagnosis starts automatically when you turn on the ignition.

Phase 1
» Checking system components capable of diagnosis while vehicle is at a standstill.


flashes.

Phase 2
» Check the wheel speed sensors while riding off.


flashes.

ABS self-diagnosis completed
» The ABS indicator and warning light extinguishes.

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

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

- You may 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 a specialist workshop, preferably an authorized BMW Motorrad retailer.

DTC self-diagnosis

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

Phase 1

» Check of system components with diagnostic capability while the vehicle is at a standstill.

 flashes slowly.

Phase 2

» Checking system components with diagnostic capability while riding off.

 flashes slowly.

DTC self-diagnosis completed

» The DTC icon is no longer displayed.

- 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, the motorcycle must reach a minimum speed with engine running: min 3 mph (min 5 km/h))

If a DTC fault is displayed after the DTC self-diagnosis is completed:

- You may continue riding. Please note that the DTC function is limited or is not available at all.
- Have the malfunction corrected as soon as possible at a specialist workshop, preferably an authorized BMW Motorrad retailer.

BREAKING IN

Engine

- In the period preceding the break-in service, ride in frequently changing engine load and engine speed ranges, avoiding extended periods at constant rpm.
- Choose curvy, slightly hilly routes if possible.
- Observe the engine run-in speeds.

 Engine run-in speed
<5000 min^{-1} (Odometer reading 0...186 miles (0...300 km))
<6500 min^{-1} (Odometer reading 186...621 miles (300...1000 km))
No full throttle (Odometer reading 0...621 miles (0...1000 km))

- Observe mileage, after which the break-in inspection should be performed.

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

WARNING

Loss of adhesion of new tires on wet roads and at extreme angles
Accident hazard
- Always think well ahead and avoid extreme angles.

SHIFTING

–with Gearshift Assistant Pro OE

Gear Shift Assistant Pro

More detailed information on Pro Gear Shift Assistant can be found in the "Technology in detail" chapter.

- The gears are shifted into as usual with foot force on the gearshift lever.

» A sensor on the gearshift shaft detects the gearshift request and triggers the shift assistance.

» If you are riding at cruising speed in a low gear at high RPMs and attempt to shift gears without clutch control, it can cause a strong load-change response. BMW Motorrad recommends only shifting gears with clutch control in these riding situations. Riders should avoid using the Gear Shift Assistant in the range of the RPM limiter.

» Shift assistance is not available in the following situations:

–Clutch disengaged.

–Gearshift lever not in its initial position.

–When upshifting with the throttle valve closed (coasting overrun) or when decelerating.

–When downshifting with the throttle valve open or when accelerating.

- To enable another gear change with the Gear Shift Assistant, the gearshift lever must be fully released after the first shifting process.

BRAKES

How do you achieve the shortest braking distance?

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

To achieve the shortest possible braking distance, the front wheel brake must be applied quickly and with progressively greater levels of force. This procedure provides ideal utilization of the dynamic load increase to the front wheel. The clutch should also be engaged at the same time. With the frequently instructed

"emergency braking," where brake pressure is generated as quickly as possible and with great force, dynamic load distribution lags behind the progressive increases in deceleration rate and the braking force cannot be completely transferred to the road.
Locking up of the front wheel is prevented by BMW Motorrad Integral ABS.

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.

Descending mountain passes

WARNING

Braking only with the rear-wheel brake when descending mountain passes.
Loss of braking action.
Destruction of the brakes caused by overheating.
- Apply the front wheel brake and use the engine brake.

DANGER

Driving with overheated brakes
Risk of accident due to brake failure
- Adapt driving style.
- Use the engine brake to avoid frequent braking.

WARNING

Failure to observe maintenance intervals
Accident hazard
- Comply with the maintenance intervals applicable for the brakes.

Wet, soiled brakes
Moisture and dirt on the brake disks and the brake pads result in a decrease in the braking action.
Delayed or poorer braking action must be expected in the following situations:
–When driving in the rain and through puddles.
–After washing the motorcycle.
–When driving on roads spread with salt.
–After working on the brakes due to oil or grease residues.
–When driving on soiled roads or offroad.

WARNING

Poorer braking action due to moisture and dirt
Accident hazard
- Brake until brakes are dry or clean; clean if necessary.
- Brake early until the full braking action is available again.

ABS Pro
Physical riding limits

WARNING

Braking in curves
Danger of falling despite ABS Pro
- The rider is always responsible for adapting his/her driving style.
- Do not reduce the system's extra safety margin with careless riding or unnecessary risks.

ABS Pro is available in all riding modes.

Falling cannot be excluded
Although ABS Pro represents valuable support and an enormous safety advantage for the rider when braking in the inclined position, it by no means redefines the physical riding limits. It is still possible to exceed those limits through misjudgments or riding errors. In extreme cases this 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, ABS Pro prevents blocking and slipping of the wheels within the scope of the physical riding limits.

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

PARKING THE 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.

- Fold out side stand and park motorcycle.

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.

- If the slope of the road permits, turn the handlebars to the left.
- On a grade, the motorcycle should always face uphill; select 1st gear.

Center stand
–with center stand OE

- Turn 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 quality
Requirement
For optimal fuel consumption, the fuel 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.

Fuel additives clean the fuel injection system and the combustion area. Fuel additives should be used when refueling with low-quality fuels or during longer periods of downtime. Your authorized BMW Motorrad retailer can provide you with more detailed information.

Recommended fuel quality
Premium unleaded (max. 15% ethanol, E15) 89 AKI (95 ROZ/RON) 90 AKI

Alternative fuel quality
Regular unleaded (restrictions with regard to power and fuel consumption) (max 15% ethanol, E10/E15) 87 AKI (91 ROZ/RON) 87 AKI

Refueling procedure

WARNING

Fuel is highly flammable
Fire and explosion hazard
- Do not smoke. Never bring a naked flame near the fuel tank.

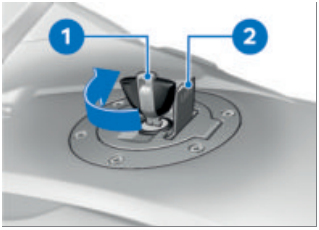
WARNING

Escaping of fuel due to expansion under exposure to heat with overfilled fuel tank
Accident hazard
- Do not overfill the fuel tank.

ATTENTION

Contact of fuel and plastic surfaces
Damage to surfaces (become unattractive or cloudy)
- Immediately clean plastic surfaces after contact with fuel.

- Park the motorcycle, making sure the ground is level and firm.



- Open the protective flap **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 listed specifications, continuing until fuel is no higher than lower edge of filler neck.

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.

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. 7 gal (Approx. 26.5 l)

Reserve fuel quantity
Approx. 1.1 gal (Approx. 4 l)

- Press the fuel tank cap down firmly to lock it.
- Remove the ignition key and close the protective flap.

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.

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.

- Park the motorcycle, making sure the ground is level and firm.

–with Keyless Ride OE

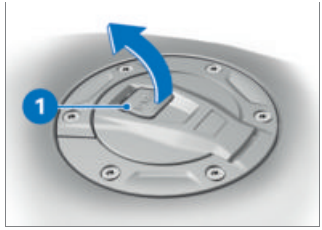
- Turning off the ignition (➠ 61).

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 period.
–After the after-run period is over.

Version 1
Requirement
Within the after-run period



- Slowly pull up the fuel cap tab **1**.

» Fuel filler cap unlocked.

- Open fuel filler cap completely.

Version 2
Requirement
After the after-run period is over

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

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

- Slowly pull up the fuel cap tab **1** again.

» Fuel filler cap unlocked.
- Open fuel filler cap completely.

- Refuel with a fuel quality as specified above, but no higher than the lower edge of the fuel filler neck. This is the maximum level.

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.

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. 7 gal (Approx. 26.5 l)

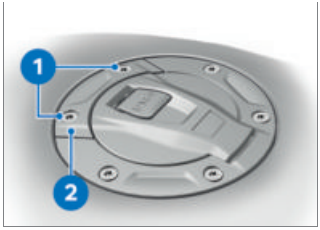
Reserve fuel quantity
Approx. 1.1 gal (Approx. 4 l)

- Press fuel filler cap of fuel tank down firmly.

» Fuel filler cap snaps in audibly.
» The fuel cap automatically locks after the after-run period is over.
» The engaged fuel cap snaps in immediately when the steering lock is locked or the ignition is turned on.

Open fuel filler cap emergency unlocking
–with Keyless Ride[OE]

The fuel filler cap cannot be opened.
- Have the fault rectified as soon as possible by a specialist workshop, preferably an authorized BMW Motorrad retailer.



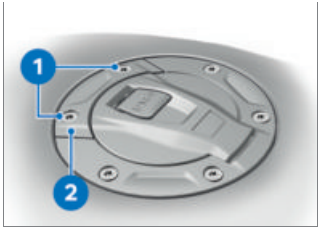
- Remove screws **1**.
- Remove emergency unlocking **2**.

» Fuel filler cap unlocked.

- Open fuel filler cap completely.
- Refueling (➠ 146).
- Close fuel filler cap emergency unlocking (➠ 149).

Close fuel filler cap emergency unlocking
–with Keyless Ride[OE]

Requirement
Fuel filler cap is closed.



- Position the emergency unlocking **2**.
- Install screws **1**.

SECURING MOTORCYCLE FOR TRANSPORTATION

- Protect all components from being scratched where tensioning belts are routed, for example, by using adhesive tape or soft cloths.

ATTENTION

Motorcycle tips to the side when raising
Component damage cause by tipping over

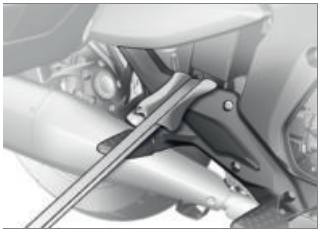
- Secure the motorcycle against tipping to the side, preferably with the assistance of a second person.

- Push the motorcycle onto the transportation flat and hold it in position; do not place it on the side stand or center stand.
- Secure the motorcycle from tipping with support from a second person.

ATTENTION

Improper placement of the tensioning straps
Damage to brake lines, cables, bearings and trim panels
- Route tensioning straps carefully.
- Protect painted components from scratching with a cloth.

- Pass the tensioning belts on left and right through the front suspension and strap the motorcycle down.



- Fasten the rear tensioning belts on both sides on the rear frame and tighten them.
- Do not pull the tensioning belts over the footrests.
- Tighten all tensioning belts evenly; the vehicle should be pulled down with the springs compressed as much as possible.

TECHNOLOGY IN DETAIL

09

GENERAL NOTES

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

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.
The BMW Motorrad Integral ABS adapts the braking force distribution between the front and rear wheel brake to the loading of the motorcycle during braking.

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 is partially dependent on the coefficient of friction of the road surface. Gravel, ice, snow and wet roads offer a considerably lower coefficient of friction than a dry, clean asphalt surface. The poorer the coefficient of friction of the road is, the longer the braking distance will be.
If the maximum transferrable braking force is exceeded when the rider increases the brake pressure, the wheels begin to lock and riding stability is lost, and a fall can occur. 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 riding stability regardless of the road condition.

What happens when rough roads are encountered?
Bumpy or rough roads can briefly lead to a loss of contact between the tires and the road surface, until the transferable braking force is reduced to zero. If braking is carried out in this situation, ABS must reduce the brake pressure to ensure driving stability when restoring contact to the road. At this point in time, the BMW Motorrad 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.

How is the BMW Motorrad Integral ABS noticeable to the rider?
If the ABS system must reduce the braking forces due to the conditions described above, then vibrations can be felt at the handbrake 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 deceleration it is possible that the BMW Motorrad Integral ABS will not 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 features of the BMW Motorrad Integral ABS?
The BMW Motorrad ABS ensures riding stability on any surface within the limits of riding physics.

At speeds greater than min 2 mph (min 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 requirements encountered under the extreme conditions of competitive off-road and racetrack 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 a longer period of time, the ABS function is turned off for safety reasons, and an ABS fault is displayed. A self-diagnosis must be completed before the fault message can be displayed.
Apart from problems on the BMW Motorrad Integral ABS, unusual riding conditions can also cause a fault message to be generated.

Unusual riding conditions:
– Warm-up on the center or auxiliary stand in neutral or with gear engaged.
– Rear wheel locked by the engine brake for a lengthy period, for example while descending on a loose surface.

Should a fault message occur due to one of the riding conditions described above, the ABS function can be reactivated by turning 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 ensur-

ing 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 the wheels from locking up, even in the event of quick brake actuation. ABS Pro reduces abrupt changes in steering forces, especially during shock braking, and therefore decreases the risk of the vehicle lifting off the ground inadvertently.

ABS control
From a technical standpoint, ABS Pro adjusts the ABS control to the angle of inclination of the vehicle 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 vehicle. With an increasing angle, the brake 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.

DYNAMIC TRACTION CONTROL (DTC)

How does traction control work?
The traction control compares the wheel centrifugal velocities of the front and rear wheels. The slip, and with it the stability reserves at the rear wheel, are determined from the speed difference. The engine control

adapts the engine torque when the slip limit is exceeded.
BMW Motorrad DTC is designed as an assistance system for the rider and for riding on public roads. The extent to which the rider affects DTC control can be considerable (weight shifts when cornering, loose luggage on the motorcycle), especially when approaching the limits imposed by the laws of physics.
The system is not optimized for the special requirements encountered under the extreme conditions of competitive off-road and racetrack use. BMW Motorrad DTC can be turned off in such instances.

WARNING

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

Special situations
As the lean angle increases, the capacity to accelerate is also increasingly limited by the laws of physics. This can result in reduced acceleration when coming out of very tight curves.

To detect spinning or slipping away of the rear wheel, the DTC compares the speeds of the front and rear wheel and takes the angle of inclination and other factors into account.

If the values for the angle of inclination are detected to be implausible for a long period, a substitute value is used for the angle of inclination/the DTC is turned off. In these cases, a DTC fault is displayed. A self-diagnosis must be completed before the fault message can be displayed.
Under the following unusual riding conditions, the BMW Motorrad Traction Control may be switched off automatically.
Unusual riding conditions:
– Riding on the rear wheel (wheelie) for a longer period.
– Rear wheel spinning in place with front wheel brake engaged (burn-out).

–Warm up on the center stand in Neutral or with gear engaged.

ENGINE DRAG TORQUE CONTROL

How does engine drag torque control work?

The purpose of the engine drag torque control is to safely prevent unstable riding conditions that are related to excess drag torque at the rear wheel. Depending on the road condition and riding dynamics, excess drag torque can make the slip at the rear wheel increase severely and impede riding stability. The engine drag torque control reduces slip at the rear wheel to a safe, setpoint slip that is dependent on the mode.

Causes of excess slip at the rear wheel:

–Riding in coasting overrun on a road with low coefficient of friction (e.g. wet leaves).
–Hopping when shifting gears down.
–Hard brake onset in sporty riding style.

Like the BMW Motorrad DTC traction control, the dynamic engine brake control engine drag torque control compares the wheel centrifugal velocity of the front and rear wheel, which are calculated from the wheel RPM and the tire radius. The engine drag torque control can determine the slip, and therefore the stability reserve, on the rear wheel using the speed difference.

If the slip exceeds the respective limit value, the engine torque is increased by slightly opening the throttle valves. The slip is reduced, and the vehicle is stabilized.

Effect of the engine drag torque control

–In the RAIN and ROAD riding modes: Maximum stability.

–In DYNAMIC riding mode: Reduced intervention when compared to the RAIN and ROAD riding modes.

ELECTRONIC CHASSIS AND SUSPENSION ADJUSTMENT

Riding position compensation

The electronic Dynamic ESA chassis and suspension adjustment can automatically adapt your motorcycle to the vehicle load. If the suspension adjustment is set to `Auto`, the rider does not have to deal with adjusting the vehicle load.

BMW Motorrad recommends the Auto chassis and suspension adjustment.

When the motorcycle is started and while it is being ridden, the system monitors the spring compression of the rear wheel and corrects the spring setting to ensure that the correct riding position is set. The damping is also automatically adjusted to the vehicle load. Using ride height sensors, Dynamic ESA detects the movements of the suspension and responds to them by adjusting the EDC valves. As a result, the suspension is adjusted to the conditions of the ground surface.
Dynamic ESA calibrates itself at regular intervals to ensure that the system is operating correctly.

Possible settings
Damping modes
–Road: Normal damping

–Cruise: Comfortable damping

Load settings
–Min: Minimum spring setting (only suitable as an aid for mounting the motorcycle)
–Auto: Riding position compensation with automatic setting of spring setting and damping (recommended chassis and suspension adjustment setting)

RIDING MODE

Selection
To adjust the motorcycle to the road condition and the desired riding experience, you can select from the following riding modes:
–RAIN
–ROAD
–DYNAMIC

For each of these riding modes, there is a coordinated setting for the DTC systems, engine drag torque control and the throttle response.

Dynamic ESA can be set regardless of the selected riding mode.

DTC can be turned off in any riding mode. The following explanations always refer to the electronic stability control systems that are turned on.

Throttle response
–In RAIN riding mode: Gentle throttle response.
–In ROAD riding mode: Optimum throttle response.

–In DYNAMIC riding mode: Direct throttle response.

Traction control DTC

–In RAIN riding mode: Maximum stability on wet roads. Acceleration may be reduced on dry roads.
–In ROAD riding mode: High stability on dry roads. The intervention of the DTC occurs later than in the RAIN riding mode. Rear wheel spinning without traction is avoided wherever possible.
–In the RAIN and ROAD riding modes, the front wheel is prevented from lift-off.
–In the DYNAMIC riding mode, the intervention of the DTC occurs later than in the RAIN and ROAD riding modes. High performance on dry roads. In poor road conditions, optimum stability cannot be guaranteed.

Switchover

Riding modes can be changed when the vehicle is at a standstill with the ignition turned on. A changeover while riding is possible under the following conditions:

–No drive torque at rear wheel.
–No brake pressure in the braking system.

For a changeover while riding, the following steps must be carried out:
–Turn back throttle grip.
–Do not actuate brake lever.
–Deactivate the cruise control.

First, the desired riding mode is preselected. The switchover does not take place until the affected systems are in the required state.
The Selection menu does not disappear from the display until the riding mode has been switched over.

TIRE PRESSURE MONITOR (RDC)

Function

A sensor located in each tire monitors the air temperature and the tire pressure 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 the transmission of the RDC measured values:
min 19 mph (min 30 km/h)

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

Transmission time of the measured values after vehicle standstill:
min 15 min

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

Tire inflation pressure ranges
The RDC control unit distinguishes between three inflation pressure ranges matched to the motorcycle:
– Tire pressure within the permissible tolerance.
– Tire pressure at the limit range of the permissible tolerance.
– Tire pressure outside the permissible tolerance.

Temperature compensation
The tire pressure is temperature-dependent: 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 in the TFT display with temperature compensation and are always based on the following tire air temperature:
68 °F (20 °C)

Tire pressure gauges at filling stations do not make any compensation for the tire 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 display.

Tire pressure adjustment
Compare the RDC value in the 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 pressure gauge at the filling station.

Example
According to the Operating Instructions, the tire pressure should have the following value:
36.3 psi (2.5 bar)
The following value is displayed in the TFT display:
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 produce the correct tire pressure, this must be increased to the following value:
37.7 psi (2.6 bar)

GEAR SHIFT ASSISTANT

–with Gearshift Assistant Pro[OE]

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

Benefits
–70-80 % of all gear shifts can be performed without using the clutch.
–Less movement between rider and passenger due to shorter gear-change intervals.
–Throttle valve does not have to be closed when changing gear under acceleration.
–During deceleration and downshifts (throttle plate closed) the system blips the throttle valve to obtain the correct engine speed.
–Shifting times are faster than when the clutch is used to shift gears.

For the system to detect the rider's intention to change gear, the gearshift lever previously not operated must be moved against the spring force by a certain amount of "overtravel" in the desired direction with a normal to brisk action and held in that position until the gear shift is completed. A further increase of the force applied to the gearshift lever during the gear shift is not necessary. After the gear shift is completed, the gearshift lever must be fully released before the Gearshift Assistant Pro can execute a new gear change.

When changing gear using the Gear Shift Assistant, the throttle setting (throttle grip position) must be kept constant before and during the gear shift. Changing the throttle position during the gear shift may cause the function to abort and/or the gear change to fail. No support is provided by the Gear Shift Assistant during gear changes made using the clutch.

Downshifts

– Downshifts are assisted up to the speed at which the engine reaches maximum rpm in the required gear. Overrevving is thus prevented.

 Maximum engine speed
max 8500 min^{-1}

Upshifts

– Upshifting is supported until the idling speed is reached in the required gear.
– The engine speed is thus prevented from dropping below idle speed.

 Idle speed
$900^{\pm 50}$ min^{-1} (Engine at operating temperature)

HILL START CONTROL

Hill Start Control function

The Hill Start Control Pro prevents uncontrolled rollback on slopes by intervening specifically in the partial integral ABS brake system without the rider having to continuously operate the brake lever. When the Hill Start Control Pro is activated, pressure builds up in the rear brake system so that the vehicle remains stationary on a sloping surface.

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

The effect of brake pressure on behavior when riding off

– 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 required.
– 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 back or slipping

–The brake pressure increases when the vehicle is rolling back with the Hill Start Control Pro activated.
–If the rear wheel slips, the brake is released again after approx. Approx. 3.3 ft (Approx. 1 m). This prevents slipping down the hill with the rear wheel locked up, for example.

Releasing the brake when stopping the engine

The Hill Start Control Pro is deactivated when the engine is switched off using the emergency-off switch or when the side stand is folded down.
In addition to indicator and warning lights, the following vehicle behavior should make the rider aware that the Hill Start Control Pro is deactivated:

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. 2 mph (3 km/h).
–The rider must brake the vehicle manually.
–After two minutes, or upon brake actuation, Hill Start Control Pro is deactivated completely.

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

ADAPTIVE HEADLIGHT

How do the adaptive headlights work?

The standard installed dimming unit in the headlight consists of two reflectors that generate low beams using LEDs. Ride height sensors at the front and rear wheel suspension provide data for continuous headlight range control. Thanks to the pitching compensation, the light always illuminates the optimal, preset area when riding on straight stretches of road, regardless of the riding conditions and load status. Using Adaptive Headlights, the dimming unit additionally rotates around an axis, depending on the angle, and compensates for the angle of roll of the vehicle. The angle of rotation is 70° (±35°).
In addition to the pitching compensation, the low-beam head-

light learns to compensate for the angle at which riding takes place. Both movements are overlaid so that a highlight in the curve results. This results in significantly improved illumination of the road when riding around curves and thus an enormous increase in active safety.

MAINTENANCE

10

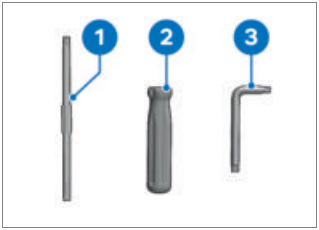
GENERAL NOTES

The "Preventive maintenance" chapter describes work involving the checking and replacement of wearing parts that can be performed with a minimum of effort.
If specific tightening torques are to be taken into account for installation, these are listed. An overview of all required tightening torques is contained in the chapter "Technical data".

Microencapsulated screws
The microencapsulation is a chemical threadlocker. An adhesive is used to create a solid connection between screw and nut or component. Microencapsulated screws, therefore, are suitable for single use only. After removal, the internal thread must be cleaned to remove adhesive. During installation, a new microencapsulated screw must be used. Therefore, before removal, ensure that you have suitable tools for cleaning the thread and have a replacement screw. If you carry out the work improperly, the locking function of the screw might no longer be guaranteed, which puts you in danger!

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

ONBOARD VEHICLE TOOL KIT



1 Reversible screwdriver insert
Slotted blade and T25 torx
2 Screwdriver handle
3 Torx wrench, T25/T30
T25 on short end, T30 on long end

FRONT WHEEL STAND

Attaching the 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.

–with center stand OE
- Make sure the ground is level and firm and put the motorcycle on its center stand.

ATTENTION

Lifting off the center stand if the vehicle is raised too high
Component damage caused by tipping over
- When raising the motorcycle, make sure that the center stand remains in contact with the ground.
- Adjust the height of the front wheel stand as necessary.
- Ensure that the motorcycle is standing securely.◁

–without center stand OE
- Put the motorcycle on an auxiliary stand; BMW Motorrad recommends the BMW Motorrad rear-wheel stand.
- Attaching the rear-wheel stand (➠ 172).◁

- For a description of the correct installation, please refer to the instructions for the front wheel stand.
- BMW Motorrad offers a suitable auxiliary stand for each motorcycle. Your authorized BMW Motorrad retailer will be very happy to assist you in choosing the suitable auxiliary stand.

REAR-WHEEL STAND

Attaching the rear-wheel stand

- For a description of the correct installation, please refer to the instructions for the rear-wheel stand.
- BMW Motorrad offers a suitable auxiliary stand for each motorcycle. Your authorized BMW Motorrad retailer will be very happy to assist you in choosing the suitable auxiliary stand.

ENGINE OIL

Checking the engine oil level

WARNING

Engine oil level too low
Risk of accident due to engine seizure
- Always make sure that the oil level is correct.

ATTENTION

Misinterpretation of the oil filling quantity, as the oil level is temperature-dependent (the higher the temperature, the higher the oil level)
Engine damage
- Only check the oil level after a longer journey or when the engine is warm.

–with center stand OE
- Make sure the surface is level and firm and place the motorcycle on its center stand at operating temperature.◁

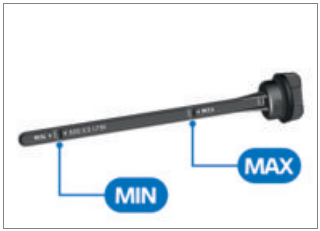
–without center stand OE

ATTENTION

Lateral tipping of the vehicle
Component damage cause by tipping over
- Secure the vehicle from tipping over laterally, preferably with the support of a second person.

- When the engine is at operating temperature, hold the motorcycle upright on ground that is level and firm.◁

- Remove the oil dipstick **1** and clean using a dry cloth.
- Fit the oil level dipstick onto the oil filler opening, however do not screw in.
- Remove the oil level dipstick and check oil level.



Specified level of engine oil
Between **MIN** and **MAX** mark (Engine at operating temperature)

Engine oil, top-up quantity
max 0.5 quarts (max 0.5 l) (Difference between **MIN** and **MAX**)

If the oil level is below the **MIN** mark:

- Topping up the engine oil (➠ 173).

If the oil level is above the **MAX** mark:

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

- Install oil level dipstick.

Topping up the engine oil

- Park the motorcycle, making sure the ground is level and firm.
- Wipe the area around the oil filler opening clean.

- Remove oil level dipstick **1**.

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.
- Checking the engine oil level (➠ 172).
- Install oil level dipstick **1**.

BRAKE SYSTEM

Checking brake operation
- Make sure ground is level and firm and park motorcycle.
- Actuate the handbrake lever.

» Pressure point must be clearly perceptible.

- Actuate the footbrake lever.

» Pressure point must be clearly perceptible.

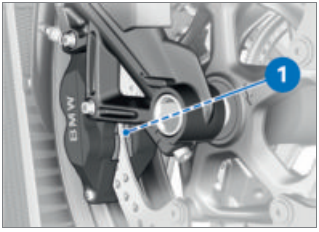
If no clear pressure points are perceptible:

ATTENTION

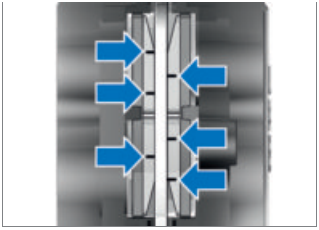
Improper working on the brake system
Endangering of the operating safety of the brake system
- Have all work on the brake system carried out by experts.

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

Checking the front brake pad thickness
- Park the motorcycle, making sure the ground is level and firm.



- Visually inspect the brake pad thickness on the left and right. Direction of view: between front suspension and brake caliper mounting bracket toward brake pads **1**.



Front brake-pad wear limit
min 0.04 in (min 1.0 mm) (Only friction lining without carrier plate. The wear marks (grooves) must be clearly visible.)

If the wear marks are no longer clearly visible:

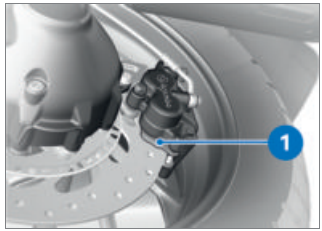
WARNING

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.

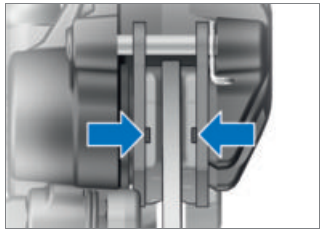
- Have brake pads renewed at a specialist workshop, preferably an authorized BMW Motorrad retailer.

Checking the rear brake pad thickness

- Park the motorcycle, making sure the ground is level and firm.



- Visually inspect the brake pad thickness. Direction of view: from below, looking at brake pads **1**.



Rear brake-pad wear limit
min 0.04 in (min 1.0 mm) (Only friction lining without carrier plate. The wear markings (grooves) must not be reached.)

If the wear mark is no longer visible:

WARNING

Dropping below the minimum pad thickness
Reduced braking action, damage to the brake
- In order to ensure the operating reliability of the brake system, make sure that the brake pads are not worn beyond their minimum thickness.

- Have brake pads renewed at a specialist workshop, 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.

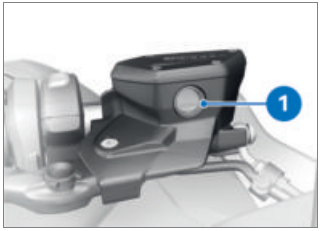
–with center stand OE
- Make sure the ground is level and firm and put the motorcycle on its center stand.◁

–without center stand OE

ATTENTION

Lateral tipping of the vehicle
Component damage cause by tipping over
- Secure the vehicle from tipping over laterally, preferably with the support of a second person.

- Hold the motorcycle upright, making sure that the ground is firm and level.◁
- Align the handlebars so that the brake fluid reservoir is positioned horizontally.



- Check brake fluid level at brake fluid reservoir for front wheel brake **1**.

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

Front brake fluid level
Brake fluid, DOT4

Front brake fluid level
The brake fluid level must not fall below the **MIN** mark. (Brake fluid reservoir horizontal, vehicle standing upright and handlebars straight ahead.)

If the brake fluid level falls below the approved level:

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

Checking the rear brake fluid level

WARNING

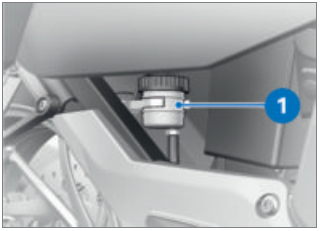
Insufficient or contaminated brake fluid in the brake fluid reservoir
Considerably reduced braking power caused by air, dirt or water in the brake system
- Stop riding immediately until fault is rectified.
- Check brake fluid level regularly.
- Make sure that the lid of the brake fluid reservoir is cleaned before opening.
- Make sure that brake fluid is used from a sealed container only.

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

–without center stand OE

ATTENTION

Lateral tipping of the vehicle
Component damage cause by tipping over
- Secure the vehicle from tipping over laterally, preferably with the support of a second person.
- Hold the motorcycle upright, making sure that the ground is firm and level.◁



- Check brake fluid level at brake fluid reservoir for rear wheel brake **1**.

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, vehicle standing upright.)

If the brake fluid level falls below the approved level:

- Have the fault rectified as soon 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.

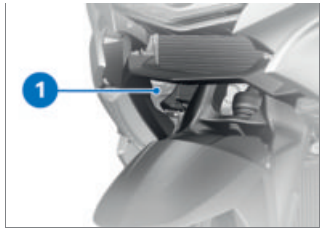
If no clear pressure point can be felt:

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

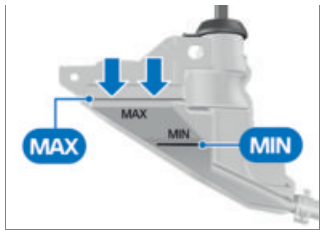
COOLANT

Checking the coolant level

- Park the motorcycle, making sure the ground is level and firm.
- Allow the engine to cool down.



- Check coolant level at expansion tank **1**.



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

If the coolant level drops below the permitted level:

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

TIRES

Tire recommendation

For every tire size, BMW Motorrad has tested and approved certain tire brands as roadworthy. BMW Motorrad cannot evaluate the suitability of any other tires, and therefore cannot take responsibility for their riding safety.
BMW Motorrad recommends only using the tires tested and approved by BMW Motorrad. Detailed information can be obtained from your authorized BMW Motorrad retailer or online at **bmw-motorrad.com/service**.

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 the motorcycle, making sure the ground is level and firm.
- Check tire pressure against data below.

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

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

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

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

Checking tire read depth

WARNING

Riding with heavily worn tyres
Risk of accident due to poorer rideability
- If necessary, replace the tyres before the legally specified minimum tread depth is reached.

- Make sure ground is level and firm and park motorcycle.
- Measure tire tread depth in main tread grooves with wear indicating marks.

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

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

RIMS

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.

WHEELS

Affect of wheel sizes on suspension control systems
The wheel sizes play a major role in the ABS and 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 are essential for correct wheel speed detection; they too must match the motorcycle's control systems and consequently cannot 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.

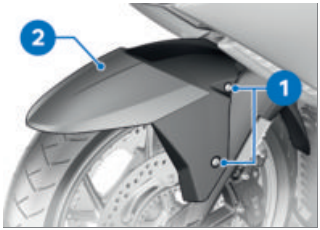
Removing front wheel

–with center stand OE

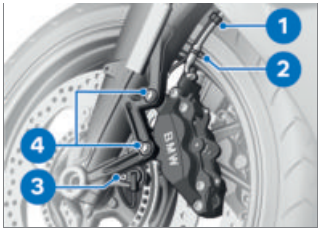
- Make sure the ground is level and firm and put the motorcycle on its center stand.◁

–without center stand OE

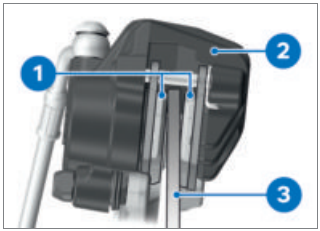
- Put the motorcycle on an auxiliary stand; BMW Motorrad recommends you use the BMW Motorrad rear-wheel stand.
- Attaching the rear-wheel stand (➠ 172).◁



- Remove the screws **1** on the left and right.
- Pull out the front wheel cover **2** toward the front.



- Take the cable for the wheel speed sensor out of the holding clip **1** and remove the cable tie **2**.
- Remove the screw **3** and remove the wheel speed sensor from the bore.
- Remove the 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 disk **3**.

ATTENTION

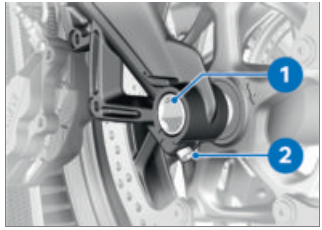
Using hard or sharp-edged objects near the component
Component damage
- Do not scratch components, if necessary tape off or cover.

- Mask off areas of the wheel rim that could get 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.

- Carefully pull the brake calipers back and outward to remove them from the brake disks.
- Raise front of motorcycle until the front wheel can turn freely. Use a suitable front wheel stand to raise the motorcycle.
- Attaching the front wheel stand (➠ 171).



- Loosen the right axle clamping screw **2**.
- Remove the quick-release axle **1** while supporting the front wheel.
- Place front wheel down and roll it forward out of the front suspension.

Installing front wheel

WARNING

Use of a wheel which does not comply with series specifications
Malfunctions during control interventions by ABS and DTC
- Please see the information on the effect of wheel sizes on the ABS and DTC chassis control systems at the beginning of this chapter.

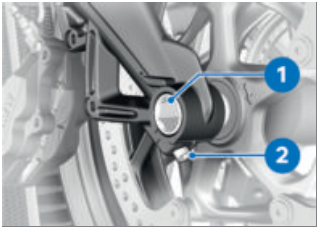
ATTENTION

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

Front wheel installation opposite the running direction
Accident hazard
- Observe running direction arrows on tire or rim.

- Roll the front wheel into the front suspension.



- Lubricate the quick-release axle **1**.

Lubricant
Optimoly TA

WARNING

Improper installation of quick-release axle
Loosening of the front wheel
- After the brake caliper is fastened and the spring fork is relaxed, tighten the quick-release axle and axle clamping with the specified torque.

- Lift the front wheel and install the quick-release axle **1** using an appropriate torque.

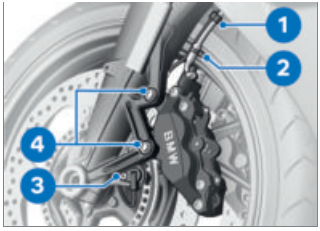
Quick-release axle in threaded bush (wheel carrier)
M24 x 1,5
37 lb/ft (50 Nm)

- Tighten right-hand axle clamping screw **2** using an appropriate torque.

Clamping screw for quick-release axle to wheel carrier
M8 x 30
14 lb/ft (19 Nm)

- Remove the front wheel stand.

- Put the brake calipers on the left and right onto the brake disks.



- Install mounting bolts **4** on left and right to the specified torque.

Front brake caliper at wheel carrier
M8 x 30 - 10.9
21 lb/ft (28 Nm)

- Remove adhesive tape from wheel rim.

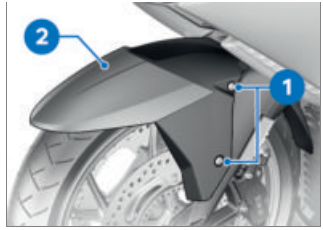
WARNING

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 until the brake pads make contact with the discs.

- Insert cable for wheel speed sensor in holding clip **1** and install cable tie **2**.
- Insert the wheel speed sensor into the bore and install the screw **3**.

Wheel speed sensor on the front suspension/ rear brake caliper
M5 x 10 - 10.9
Thread-locking compound: micro-encapsulated
3 lb/ft (4.6 Nm)



- Position front wheel cover **2** and install screws **1** on the left and right.

Front-wheel cover on the wheel carrier
M6 x 16
Thread-locking compound: micro-encapsulated
1 lb/ft (2 Nm)

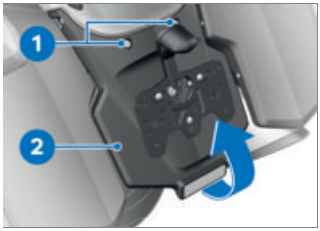
Removing the rear wheel

–with center stand OE

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

–without center stand OE

- Put the motorcycle on an auxiliary stand; BMW Motorrad recommends you use the BMW Motorrad rear-wheel stand.
- Attaching the rear-wheel stand (➠ 172).◁



- Remove screws **1**.
- Folding up the license-plate carrier **2**.
- Shift into first gear.

CAUTION

Hot exhaust system

Burn hazard

- Do not touch hot exhaust system.

- Remove the screws **1** of the rear wheel while supporting the wheel.
- 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 DTC

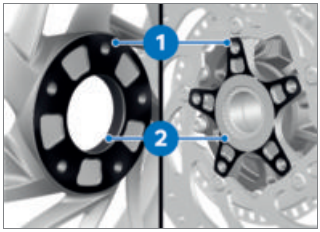
- Please see the information on the effect of wheel sizes on the ABS and DTC chassis control systems at the beginning of this chapter.

ATTENTION

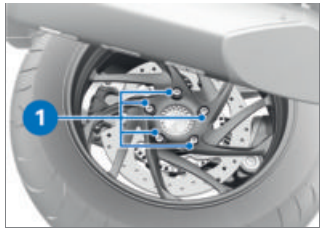
Tightening of screwed connections with incorrect tightening torque
Damage or loosening of screwed connections
- Always have the tightening torques checked by a specialized workshop, preferably an authorized BMW Motorrad retailer.

ATTENTION

Rear wheel installation counter to running direction
Risk of accident
- Observe running direction arrow on tire or rim.

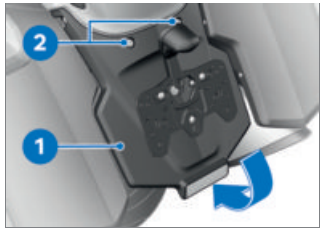


- Clean contact surfaces of the wheel hub **1** and wheel centering device **2**.
- Roll and place rear wheel onto rear wheel support.



- Install the screws **1** and tighten to the appropriate torque.

Tighten rear wheel on wheel flange
Tightening sequence: Tighten crosswise
M10 x 1.25 x 40
44 lb/ft (60 Nm)



- Folding down the license-plate carrier **1**.
- Install screws **2**.

License-plate carrier on rear frame
M6 x 17.5
6 lb/ft (8 Nm)

LIGHT SOURCES

Replacing the LED light source

WARNING

Overlooking the vehicle in traffic due to a defective light source on the vehicle
Safety risk
- Replace defective light sources as quickly as possible. For details please contact a specialist service facility, preferably an authorized BMW Motorrad Retailer.

All light sources on the vehicle are LED light sources. The service life of the LED light sources is longer than the assumed service life of the vehicle. If an LED light source is faulty, please contact a specialist workshop, preferably an authorized BMW Motorrad retailer.

JUMP-STARTING

CAUTION

Touching live parts of the ignition system when the engine is running
Electrocution
- Do not touch parts of the ignition system when the engine is running.

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.

- Do not disconnect battery from onboard electrical system for jump-starting procedure.
- Removing the seat (➠ 83).
- Removing the battery cover (➠ 192).
- Run the engine of the donor vehicle during the jump-starting procedure.
- Begin by clamping one end of the red jumper cable to the positive terminal of the drained battery and clamping the other end to the positive terminal of the donor battery.
- Clamp the black jumper cable first to the donor battery's negative terminal and then to the drained battery's negative terminal.
- Start the engine of the vehicle with the empty battery in the usual way; if the engine does not start, wait a few minutes before repeating the attempt to start the engine to protect the starter motor and the donor battery.
- Idle both engines for a few minutes before disconnecting the jumper cables.
- Disconnect jumper cables first from negative, then from positive terminal.
- Installing the battery cover (➠ 192).
- Installing the seat (➠ 84).

BATTERY

Maintenance instructions
Correct battery maintenance combined with proper charging and storage procedures extends the battery's service life, and is also required for warranty claims.
Compliance with the points below is important in order to maximize battery life:
– Keep the surface of the battery clean and dry.
– Do not open the battery.
– Do not top up with water.
– Be sure to read and comply with the instructions for charging the battery on the following pages.
– Do not turn the battery upside down.

ATTENTION

Discharging of the connected battery by the vehicle electronics (e.g. clock)
Total discharge of battery leading to a rejection of warranty claims
- During riding breaks of more than 4 weeks, connect a trickle-charger to the battery.

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

Charging connected battery

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 using the socket on the dashboard.

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.

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

ATTENTION

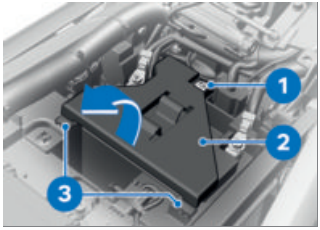
Charging the battery connected to the vehicle using the battery terminals
Damage to the motorcycle's electronics
- Disconnect the battery before charging on the battery terminals.

- Disconnecting battery from vehicle (➠ 192).
- 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.

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.

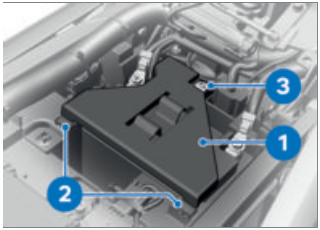
- Connecting battery to vehicle (➠ 192).

Removing the battery cover



- Remove screw **1**.
- Lift up the cover **2** paying attention to the retaining lugs **3**.

Installing the battery cover

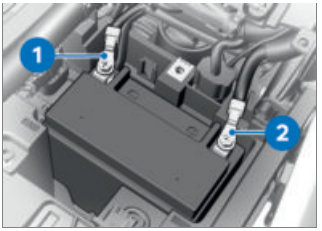


- Position cover **1** with the retaining lugs **2**.
- Install screw **3**.

	Battery bracket on rear carrier part
M6 x 14,5	
6 lb/ft (8 Nm)	

Disconnecting battery from vehicle

- Park the motorcycle, making sure the ground is level and firm.
- Removing the seat (➠ 83).
- Removing the battery cover (➠ 192).



ATTENTION

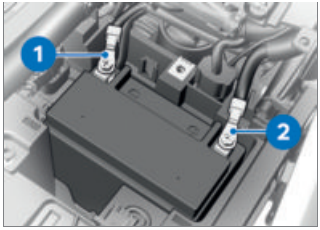
Incorrect battery disconnection
Danger of short circuit
- Follow the disconnection sequence.

- First remove the negative battery cable **1**.
- Then remove the positive battery cable **2**.

Connecting battery to vehicle

ATTENTION

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



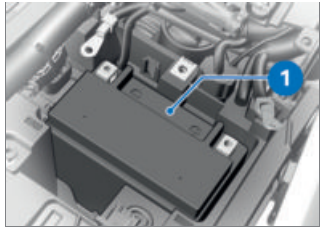
- First install the positive battery cable **2**.
- Then install the negative battery cable **1**.
- Installing the battery cover (➠ 192).
- Installing the seat (➠ 84).

Removing the battery

- Removing the battery cover (➠ 192).
- Disconnecting battery from vehicle (➠ 192).

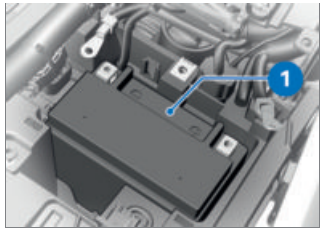
–with anti-theft alarm system (DWA) OE

- Turn off the anti-theft alarm system.◁
- Turn off the ignition.



- Lift the battery **1** up and out; use tilting movements in the event of stiff movement.

Installing the battery



- Place battery **1** in battery compartment with positive terminal on left in forwards direction.

–with anti-theft alarm system (DWA) OE

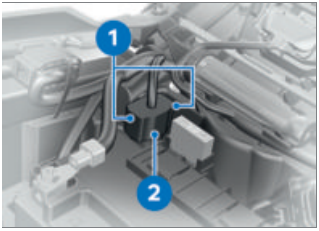
- Turn on the anti-theft alarm system.◁
- Connecting battery to vehicle (➠ 192).
- Installing the battery cover (➠ 192).
- Setting the clock (➠ 101).

- Setting the date (➠ 101).

FUSES

Replacing fuse

- Turning off the ignition (➠ 59).
- Removing the seat (➠ 83).
- Removing the battery cover (➠ 192).



- Press lock **1** on both sides.
- Pull off the fuse box **2**.

ATTENTION

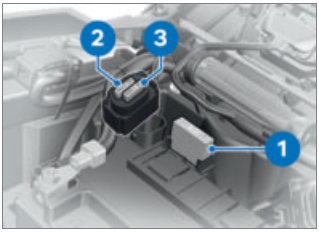
Bypassing defective fuses
Risk of short circuit and fire
- Do not bypass defective fuses.
- Replace defective fuses with new fuses.

- Replace faulty fuse according to assignment plan.

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

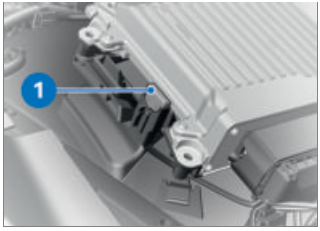
- Reinsert the fuse box **2**. Make sure that the lock **1** snaps in on both sides.
- Installing the battery cover (➠ 192).
- Installing the seat (➠ 84).

Fuse layout



1 40 A
Main fuse
2 7.5 A
Topcase, TPM, sensor box
3 10 A
Instrument cluster, ignition switch, DWA, cut-off relay, OBD connector

Fuse for audio system



1 15 A
Fuse for audio system

DIAGNOSTIC CONNECTOR

Detaching the diagnostic connector

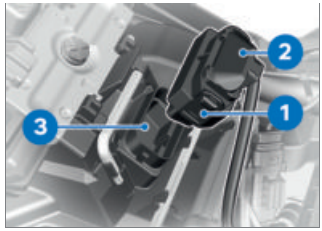
CAUTION

Incorrect procedure when disconnecting the diagnostic socket for onboard diagnosis

Vehicle experiences malfunctions

- Do not have the diagnostic socket disconnected except during BMW Motorrad service by a specialist workshop or other authorized persons.
- Have work carried out by appropriately trained personnel.
- Observe the specifications of the vehicle manufacturer.

- Removing the seat (➠ 83).

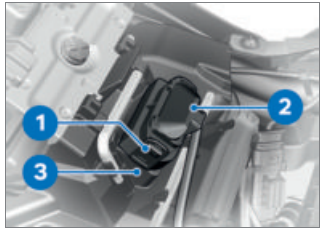


- Press locking mechanisms **1**.
- Detach the diagnostic connector **2** from the seat bracket **3**.

» The interface for the diagnostics and information system can be connected to the diagnostic connector **2**.

Fastening the diagnostic connector

- Disconnect the interface for the diagnostics and information system.



- Plug the diagnostic connector **2** into the seat bracket **3**.

» The locks **1** snap in.

- Installing the seat (➠ 84).

ACCESSORIES

11

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, function and suitability of the parts and accessory products have been thoroughly tested by BMW. Therefore, BMW assumes responsibility for these products. BMW shall not be held liable for unapproved parts and accessory products of any kind.
Comply with the legal requirements for any modifications.
Consult the road traffic licensing regulations of your country.
Your authorized BMW Motorrad retailer offers you qualified advice for choosing original BMW parts, accessories and other products.
More information on the topic of accessories is available at: **bmw-motorrad.com/equipment**.

SOCKETS

Connecting electrical devices
– The ignition must be turned on before electrical devices connected to the onboard power sockets can be put into operation.

Cable layout
– 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 layout must not restrict the steering angle and the handling characteristics.
– Cables must not be trapped.

Automatic shutoff

– The onboard sockets are automatically turned off during the starting procedure.
– To reduce the load on the electrical system, the power sockets are turned off a certain amount of time after the ignition is turned off. Accessories with low electrical consumption are possibly not detected by the vehicle electronics. In these cases, onboard sockets are already turned off shortly after the ignition is turned off.

 Automatic power socket cut-out after ignition is turned off
max 15 min

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

CARE

12

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 THE VEHICLE

BMW Motorrad recommends that you use BMW Insect Remover to soften and wash off insects and stubborn dirt from painted parts before washing the vehicle.

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

Regularly clean the fork tubes of contamination.

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

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

After rides in the rain, in high humidity and after the vehicle is washed, condensation can form inside the headlight. During this process, the headlight can become foggy for a while. If moisture accumulates in the headlight on an ongoing basis, contact a specialist workshop, preferably an authorized BMW Motorrad retailer.

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 VEHICLE 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.

Clean plastic components with water and BMW plastic care emulsion. This includes in particular:

–Windshields and wind deflectors

–Headlight diffusers made of plastic

–Glass cover of the instrument cluster

–Black, unpainted parts

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

TFT display
Clean the TFT display with warm water and dish soap. Then dry with a clean cloth, e.g. a paper towel.

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

ATTENTION

Use of silicone sprays for care of rubber seals
Damage to rubber seals
- Do not use silicone sprays or care products that contain silicone.

PAINT CARE

Washing the 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. However, remove particularly aggressive materials immediately; otherwise changes in the paint or discoloration can occur. These include spilled fuel, oil, grease and brake fluid as well as bird droppings.
BMW Motorrad recommends using a solvent cleaner and then applying a 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.

STORING THE MOTORCYCLE

- Completely fill the motorcycle's fuel tank.

Fuel additives clean the fuel injection system and the combustion area. Fuel additives should be used when refueling with low-quality fuels or during longer periods of downtime. Your authorized BMW Motorrad retailer can provide you with more detailed information.

- Clean the motorcycle.
- Removing the battery (➠ 193).
- Spray brake lever and clutch lever as well as center and side stand pivots with a suitable lubricant.
- Preserve bare metal and chrome-plated parts with an acid-free grease (Vaseline).
- Park motorcycle in a dry room, raising it to relieve both wheels.

PUTTING THE MOTORCYCLE INTO OPERATION

- Remove the protective wax coating.
- Clean the motorcycle.
- Installing the battery (➠ 193).
- Observe checklist (➠ 136).

TECHNICAL DATA

13

TROUBLESHOOTING CHART

Engine does not start.

Possible cause	Remedy
Side stand is extended	Retract side stand.
Gear engaged and clutch not disengaged	Place transmission in neutral or disengage clutch.
No fuel in tank	Refueling (➠ 145).
Battery drained	Charge battery.
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.

Bluetooth connection is not established.

Possible cause	Remedy
Necessary pairing steps were not performed.	Refer to the operating instructions of the communication system for the necessary steps for pairing.
The communication system is not connected automatically despite successful pairing.	Turn off the communication system of the helmet and connect again after one to two minutes.
Too many Bluetooth® devices are stored in the helmet.	Delete all pairing entries in the helmet (see the operating instructions of the communication system).
There are additional vehicles with Bluetooth-capable devices nearby.	Avoid simultaneous pairing with multiple vehicles.

Bluetooth® connection is faulty.

Possible cause	Remedy
Bluetooth® connection to the mobile end device is interrupted.	Turn off energy saving mode.
Bluetooth connection to the helmet is interrupted.	Turn off the communication system of the helmet and connect again after one to two minutes.
Bluetooth connection interrupted.	The temperature of the TFT display is too high. Bluetooth® is deactivated. The brightness of the TFT display is reduced. Avoid direct sunlight on the TFT display. Do not continue riding until components have cooled down.
Volume in the helmet cannot be adjusted.	Turn off the communication system of the helmet and connect again after one to two minutes.
Volume in helmet is too low.	Set volume for media and conversations to maximum on the mobile end device.

TFT display faulty.

Possible cause	Remedy
TFT display brightness reduced.	The temperature of the TFT display is too high. The brightness of the TFT display is reduced. Avoid direct sunlight on the TFT display. Do not continue riding until components have cooled down.

Phone book is not displayed in the TFT display.

Possible cause	Remedy
Phone book was has not yet been transferred to the vehicle.	When pairing to the mobile end device, confirm the transfer of the telephone data (⇒ 113).
Not all contacts are displayed.	The number of phone book entries in the TFT display that can be saved is limited. Reduce the number of phone book entries in the mobile end device.

Active destination guidance is not displayed in the TFT display.

Possible cause	Remedy
Navigation from the BMW Motorrad Connected App was not transferred.	Go to the BMW Motorrad Connected App on the connected mobile end device before riding.
Route guidance cannot be started.	Ensure that there is a data connection to the mobile end device and check the map data on the mobile end device.

The playlist is not displayed in the TFT display.

Possible cause	Remedy
There are too many titles in the playlist on the mobile end device.	Reduce the number of titles in the playlist on the mobile end device.

THREADED CONNECTIONS		
Front wheel	**Value**	**Valid**
Front brake caliper at wheel carrier		
M8 x 30 - 10.9	21 lb/ft (28 Nm)	
Clamping screw for quick-release axle to wheel carrier		
M8 x 30	14 lb/ft (19 Nm)	
Quick-release axle in threaded bush (wheel carrier)		
M24 x 1,5	37 lb/ft (50 Nm)	
Wheel speed sensor on the front suspension/rear brake caliper		
M5 x 10 - 10.9, Renew bolt micro-encapsulated	3 lb/ft (4.6 Nm)	
Front-wheel cover on the wheel carrier		
M6 x 16, Renew bolt micro-encapsulated	1 lb/ft (2 Nm)	

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

Battery	Value	Valid
Battery bracket on rear carrier part		
M6 x 14,5	6 lb/ft (8 Nm)	

FUEL	
Recommended fuel quality	Premium unleaded (max. 15% ethanol, E15) 89 AKI (95 ROZ/RON) 90 AKI
Alternative fuel quality	Regular unleaded (restrictions with regard to power and fuel consumption) (max 15% ethanol, E10/E15) 87 AKI (91 ROZ/RON) 87 AKI
Usable fuel quantity	Approx. 7 gal (Approx. 26.5 l)
Reserve fuel quantity	Approx. 1.1 gal (Approx. 4 l)
Fuel consumption	Approx. 40 mpg (Approx. 5.9 l/100 km), In accordance with WMTC
CO2 emissions	137 g/km, In accordance with WMTC
Emission standard	TIER 2, measured in accordance with FTP75

ENGINE OIL	
Engine oil, filling capacity	Approx. 1.2 gal (Approx. 4.5 l), with filter exchange
Specification	SAE 5W-40, API SJ/ JASO MA2, Additives (for instance, molybdenum-based substances) are prohibited, because they would attack the coatings on engine components, BMW Motorrad recommends BMW Motorrad ADVANTEC Ultimate oil.
Engine oil, top-up quantity	max 0.5 quarts (max 0.5 l), Difference between **MIN** and **MAX**

BMW recommends ADVANTEC ORIGINAL BMW ENGINE OIL

ENGINE	
Engine number location	Above oil filler neck
Engine type	A40A16A
Engine design	Transverse in-line six cylinder four-stroke engine with four valves per cylinder and two overhead camshafts; liquid cooling, electronic fuel injection, integral six-speed cassette gearbox, dry-sump lubrication.
Displacement	1649 cc (1649 cm^3)
Cylinder bore	2.8 in (72.0 mm)
Piston stroke	2.7 in (67.5 mm)
Compression ratio	12.2:1

Nominal capacity	158 hp (118 kW), at RPM: 6750 min^{-1}
Torque	133 lb/ft (180 Nm), at RPM: 5250 min^{-1}
Maximum engine speed	max 8500 min^{-1}
Idle speed	$900^{\pm 50}$ min^{-1}, Engine at operating temperature

CLUTCH

Clutch design	Multi-disc oil bath

TRANSMISSION

Transmission design	Claw-shifted 6-speed transmission with helical-cut splines
Transmission gear ratios	1.617 (97:60 teeth), Primary gear ratio 1.258 (39:31 teeth), Transmission input ratio 1.941 (33:17 teeth), 1. Gear 1.429 (30:21 teeth), 2. Gear 1.148 (31:27 teeth), 3. Gear 0.960 (24:25 teeth), 4. Gear 0.806 (25:31 teeth), 5. Gear 0.686 (24:35 teeth), 6. Gear 0.913 (21:23 teeth), Transmission output ratio

REAR-WHEEL DRIVE

Type of final drive	Shaft drive with bevel gears
Gear ratio of rear-wheel drive	2.75 (33:12 teeth)
Type of rear-wheel guide	Cast-aluminum single swing arm with BMW Motorrad paralever

FRAME	
Frame design	Aluminum composite bridge frame, integrated engine
Location of type plate	Top right wheel carrier
Location of the vehicle identification number	Rear main frame side section, right, over swinging arm bearing, facing in direction of travel

RUNNING GEAR	
Front wheel	
Type of front suspension	BMW Motorrad Duolever
Design of the front-wheel suspension	Central spring strut with coil spring
Spring travel, front	4.5 in (115 mm), on wheel
Rear wheel	
Design of rear-wheel suspension	Central spring strut with coil spring, adjustable rebound-stage damping and spring preload
Spring travel, rear	4.9 in (125 mm), on wheel

BRAKES	
Front wheel	
Type of front wheel brake	Two-rotor disk brake, diameter 320 mm, 4-piston fixed caliper
Front brake pad material	Sintered metal
Front brake disc thickness	0.2 in (5.0 mm), New condition min 0.18 in (min 4.5 mm), Wear limit
Free travel of brake actuation (Front wheel brake)	0.09...0.11 in (2.3...2.7 mm), at piston

Rear wheel	
Type of rear wheel brake	Single-disc brake, diameter 276 mm, 2-piston floating caliper
Rear brake pad material	Organic
Rear brake disc thickness	0.22 in (5.5 mm), New condition min 0.19 in (min 4.9 mm), Wear limit
Blow-by clearance of foot-brake lever	min 0.04 in (min 1 mm), between piston and pushrod

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
–with Option 719 Classic forged wheels	Aluminum forged wheel
Front-wheel rim size	3.50" x 17"
Front tire designation	120/70 ZR 17
Load index for front tire	At least 58
Front wheel load at unloaded vehicle weight	375 lbs (170 kg)
Permissible front wheel load	max 467 lbs (max 212 kg)
Permissible front-wheel imbalance	max 0.2 oz (max 5 g)

Rear wheel	
Rear wheel design	Aluminum cast wheel
–with Option 719 Classic forged wheels	Aluminum forged wheel
Rear-wheel rim size	6.00" x 17"
Rear tire designation	190/55 ZR 17
Load index for rear tire	At least 75
Rear wheel load at unloaded vehicle weight	428 lbs (194 kg)
Permissible rear wheel load	max 811 lbs (max 368 kg)
Permissible rear-wheel imbalance	max 0.2 oz (max 5 g)
Tire inflation pressure	
Front tire pressure	42.1 psi (2.9 bar), with tire cold
Rear tire pressure	42.1 psi (2.9 bar), with tire cold

ELECTRICAL SYSTEM	
Electrical rating of onboard sockets	max 10 A, all slots in total
Battery	
Battery design	Absorbent Glass Mat, maintenance-free
Battery voltage	12 V
Battery capacity	16 Ah
Spark plugs	
Spark plugs, manufacturer and designation	NGK LMAR8AI-10

Light sources	
Bulb for high-beam headlight	LED
Bulbs for low-beam headlight	LED
Bulb for parking light	LED
Bulb for taillight/brake light	LED
Bulbs for flashing turn indicators	LED
Bulbs for flashing turn indicators, rear	LED
Light source for license plate light	Integrated in tail light
Fuses	
Main fuse	40 A, Controller, cut-off relay, BCL
Fuse 1	7.5 A, Topcase, TPM, sensor box
Fuse 2	10 A, Instrument cluster, ignition switch, DWA, cut-off relay, OBD connector
Fuse 3	15 A, Audio system

ANTI-THEFT ALARM SYSTEM

Anti-theft alarm	
Activation time	Approx. 30 s
Alarm duration	Approx. 26 s
Activation time between two alarms	Approx. 15 s
Battery type	CR 123 A

DIMENSIONS	
Motorcycle length	100.8 in (2560 mm), over topcase
Motorcycle height	56.7...62.2 in (1440...1580 mm), over windshield, at DIN unloaded vehicle weight
Motorcycle width	39.4 in (1000 mm), with mirrors
Front-seat height	29.5 in (750 mm), without rider, at DIN unloaded vehicle weight
–with seat, high OE	31.5 in (800 mm), without rider, at DIN unloaded vehicle weight
Rider's inside-leg arc, heel to heel	69.3 in (1760 mm), without rider, at DIN unloaded vehicle weight
–with seat, high OE	72.8 in (1850 mm), without rider, at DIN unloaded vehicle weight

WEIGHTS	
Unloaded vehicle weight	809 lbs (367 kg), DIN unloaded vehicle weight, ready for road, 90% full tank of gas, without additional OE
Gross vehicle weight	1235 lbs (560 kg)
Maximum payload	425 lbs (193 kg)
Payload per case	max 22 lbs (max 10 kg)
Payload of Topcase	max 22 lbs (max 10 kg)

PERFORMANCE DATA

Maximum speed	101 mph (162 km/h)
Maximum speed when riding with a loaded case	max 81 mph (max 130 km/h)
Maximum speed when riding with a loaded topcase	max 81 mph (max 130 km/h)

SERVICE

14

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.

Canadian customers who wish to report a safetyrelated defect to Transport Canada, Defect Investigations and Recalls, may call the toll-free hotline 1–800–333–0510. You can also obtain other information about motor vehicle safety from http:// www.tc.gc.ca/roadsafety.

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 reliably conduct all preventive maintenance and repair procedures on 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 is always in optimum condition, BMW Motorrad recommends that you comply with the maintenance intervals specified for your motorcycle.
Have all preventive maintenance and repair procedures confirmed in the Service chapter in this manual. Documented proof of scheduled preventive 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 Motorrad Services from your BMW Motorrad retailer.

BMW MOTORRAD SERVICE HISTORY

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 History (eSH), service-related data is stored on the central IT systems of BMW AG in Munich, Germany.
When there is a change in vehicle owner, the data entered in the electronic Service History 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 History.

Objection
At the BMW Motorrad retailer or specialist workshop, the vehicle owner can object to the entry of data in the electronic Service History 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 History.

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 WORK

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

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

BMW Motorrad Service
BMW Motorrad Service is carried out once a year.
The scope of the services performed may be dependent on the age of the vehicle and the mileage ridden.
Your BMW Motorrad retailer confirms that the service has been performed and enters the date for the next service.
For riders with a high annual distance traveled, it may be necessary to come in for service before the entered date. In these cases, a corresponding maximum distance covered will also be entered in the confirmation of service. If this distance covered is reached before the next service appointment, service must be performed sooner.

The service display in the multifunction display reminds you of the next service appointment approx. one month or 620 mi (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 vehicle can be found in the following maintenance schedule.

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		
5				X			X			X			
6				X			X			X			
7													X
8			X		X		X		X		X		X[b]
9												X[c]	X[c]

1 BMW Motorrad break-in inspection (including oil and oil filter change)
2 Standard scope of BMW Motorrad service
3 Engine oil change with filter
4 Replace the air filter insert
5 Check valve clearance
6 Replace all spark plugs
7 Check bearing for deflection at rear wheel swinging arm
8 Oil change in the bevel gears
9 Change brake fluid in the entire system

[a] Annually or every 6000 mi (whichever comes first)
[b] every 2 years or every 12,000 mi (whichever comes first)
[c] At first after one year, then every two years

MAINTENANCE CONFIRMATIONS

BMW Motorrad Service standard scope

The repair procedures belonging to the BMW Motorrad 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
- Draining the oil condensate hose
- 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
- Visual inspection of the clutch system
- Checking coolant level
- Checking the tire pressure and tread depth
- Check side stand for ease of movement
- Checking center stand for ease of movement
- 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
- Confirming the BMW Motorrad service in the vehicle literature

BMW pre-delivery check
performed

on_____

Stamp, signature

BMW running-in check
performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

Stamp, signature

BMW Motorrad Service
performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

Work performed

	Yes	No
BMW Motorrad Service	☐	☐
Engine oil change with filter	☐	☐
Replacing air cleaner element	☐	☐
Checking valve clearance	☐	☐
Replacing all spark plugs	☐	☐
Check bearing for deflection at rear wheel swinging arm (in maintenance	☐	☐
Oil change in rear bevel gears	☐	☐
Changing brake fluid in entire system	☐	☐

Notes

Stamp, signature

BMW Motorrad Service
performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

Work performed

	Yes	No
BMW Motorrad Service	☐	☐
Engine oil change with filter	☐	☐
Replacing air cleaner element	☐	☐
Checking valve clearance	☐	☐
Replacing all spark plugs	☐	☐
Check bearing for deflection at rear wheel swinging arm (in maintenance	☐	☐
Oil change in rear bevel gears	☐	☐
Changing brake fluid in entire system	☐	☐

Notes

Stamp, signature

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performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

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performed

on_____
at km_____

Next service
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on_____
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performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

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Oil change in rear bevel gears	☐	☐
Changing brake fluid in entire system	☐	☐

Notes

Stamp, signature

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	at km	Date

Work performed	at km	Date

Declaration of Conformity

Radio equipment TFT instrument cluster

For all Countries without EU

Model name: ICC10in

Technical information
The ICC10in can operate in one of two operating modes:
1. Normal mode, with Bluetooth and WLAN on, and
2. Radio off mode (only available during vehicle manufacturing).

BT operating frq. Range:
2402 – 2480 MHz
BT version: 4.2 (no BTLE)
BT output power:
< +4 dBm (internal antenna)
WLAN operating frq. Range:
2402 – 2472 MHz
WLAN standards:
IEEE 802.11 b/g/n
WLAN output power:
< +14 dBm (internal antenna)

Manufacturer and Address
Manufacturer:
Robert Bosch GmbH
Address:
Robert-Bosch-Platz 1,
70839 Gerlingen, Germany

Turkey
Robert Bosch GmbH, ICC10in tipi telsiz sisteminin 2014/53/EU nolu yönetmeliğe uygun olduğunu beyan eder. AB Uygunluk Beyanı'nın tam metni, aşağıdaki internet adresinden görülebilir: http://cert.bosch-carmultimedia.net

Brazil
Este equipamento não tem direito proteção contra interferência prejudicial e não pode causar interferência em sistemas devidamente autorizados.
Para maiores informações, consulte o site da ANATEL www.anatel.gov.br

Thailand
เครื่องโทรคมนาคมและอุปกรณ์นี้มีความสอดคล้องตามข้อกำหนดของ กทช.
(This telecommunication equipments is in compliance with NTC requirements)

Argentina
R! RAMATEL
C-25636

Canada

This device contains licence-exempt transmitter(s)/ receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

(1) This device may not cause interference.
(2) This device must accept any interference, including interference that may cause undesired operation of the device.

Radiofrequency radiation exposure Information: This equipment complies with Canada radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 20 centimeters between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique 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;
(2) L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Informations sur l'exposition aux radiofréquences:
Cet équipement est conforme aux limites d'exposition aux radiations fixées par le Canada pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec une distance minimale de 20 centimètres entre le radiateur et votre corps. Cet émetteur ne doit pas être co-localisée ou opérant en conjonction avec autre antenne ou émetteur.

United States (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.

Changes or modifications made to this equipment not expressly approved by Robert Bosch GmbH may void the FCC authorization to operate this equipment.
NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Radiofrequency radiation exposure Information: This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 20 cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Japan

This device is granted pursuant to the Japanese Radio Law（電波法) and the Japanese Telecommunications Business Law (電気通信事業法)

本製品は、電波法と電気通信事業法に基づく適合証明を受けております。

This device should not be modified (otherwise the granted designation number will become invalid)

本製品の改造は禁止されています。（適合証明番号などが無効となります。）

R 201-200559

T 20 0138 201

Korea

Equipment Name: BMW A-Kombi
Basic model number: ICC10in
Manufacturer/Country of Origin: Robert Bosch GmbH / 포르투갈
Zertifikatsnummer:
R-R-BO2-ICC10in

Serbia

ID: И011 20

Mexico

La operación de este equipo está sujeta a las siguientes dos condiciones:

(1) es posible que este equipo o dispositivo no cause interferencia perjudicial y

(2) este equipo o dispositivo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operación no deseada.

IFETEL

Taiwan, Republic of

取得審驗證明之低功率射頻器材，非經核准，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。低功率射頻器材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。前述合法通信，指依電信管理法規定作業之無線電通信。低功率射頻器材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。

Declaration of Conformity

Radio equipment audio system

Model name: MCR001

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.

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

Cet appareil est conforme à la partie 15 des règles FCC. Son fonctionnement est soumis aux deux conditions suivantes :

(1) Cet appareil ne doit pas causer d'interférences nuisibles, et
(2) cet appareil doit accepter toute interférence reçue, y compris les interférences pouvant entraîner un fonctionnement indésirable.

ATTENTION FCC
Les changements ou modifications non expressément approuvés par la partie responsable de la conformité peuvent annuler le droit de l'utilisateur à faire fonctionner l'équipement.

Declaration of Conformity

Radio equipment electronic immobiliser (EWS4)

For all countries without EU

Technical information
Frequency Band: 134 kHz
(Transponder: TMS37145 / Type DST80, TMS3705 Transponder Base Station IC)
Output Power: 50 dBµV/m

Manufacturer and Address
Manufacturer:
BECOM Electronics GmbH
Address: Technikerstraße 1, A-7442 Hochstraß

Argentina

RAMATEL
H-25246

Australia/New Zealand

R-NZ

Brunei

AITI
TA No: DTA-007061

United Arab Emirates

TRA
REGISTERED No:
ER89926/20

DEALER No:
DA96133I20

Philippiens

NTC
Type Approved
No.: ESD-RCE-2023298

South Africa

TA-2020/6131
ICASA
APPROVED

India

ETA-SD-20200905860

Belarus

TP BY

Indonesia

72790/SDPPI/2021
13349

Dilarang melakukan perubahan Spesifikasi yang dapat Menimbulkan gangguan fisik dan/atau elektromagnetik terhadap lingkungan sekitarnya

Paraquay

CONATEL

NR: 2020-11-I-0834

Singapore

Complies with
IMDA Standards
N3504-20

Taiwan

低功　電波　射性電機管　辦法
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。

Malaysia

MCMC

RFCL/47A/0920/S(20-3358)

Israel

מספר אישור אלחוטי של משרד התקשורת הוא 51-74908
אסור להחליף את האנטנה המקורית של המכשיר ולא
לעשות בו כל שינוי טכני אחר

United States (USA)

Contains FCC ID:
ODE-MREWS5012
FCC § 15.19 Labelling requirements
This device complies with part 15 of the FCC Rules and Industry Canada's licence-exempt RSS standard(s). Operation is subject to the following two conditions:

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

FCC § 15.21 Information to user

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

RF Exposure Requirements

To comply with FCC RF exposure compliance requirements, the device must be installed to provide a separation distance of at least 20 cm from all persons.

Serbia

P1620118300

Canada

Contains IC:
10430A-MREWS5012
This device complies with part 15 of the FCC Rules and Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:

(1) this device may not cause 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.

Vietnam

A1109091120AF04A3

Certifications

BMW Keyless Ride ID Device

USA, Canada:

Product name: BMW Keyless Ride ID
Device FCC ID: YGOHUF5750
IC: 4008C-HUF5750

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

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.

Argentina:

CNC COMISIÓN NACIONAL DE COMUNICACIONES

H-17115

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 with 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
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Certification Tire Pressure Control (TPC)

FCC ID: MRXBC54MA4
IC: 2546A-BC54MA4

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.

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.

FCC ID: MRXBC5A4
IC: 2546A-BC5A4

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.

IP notice: HD Radio™

HD Radio Technology manufactured under license from iBiquity Digital Corporation. U.S. and Foreign Patents.

For patents see http://dts.com/patents.

HD Radio, Artist Experience, and the HD, HD Radio, and "ARC" logos are registered trademarks or trademarks of iBiquity Digital Corporation in the United States and/or other countries.

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 will be entertained as a result of such discrepancies.
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 and preventive maintenance of a passenger vehicle or off-road vehicle can expose you to substances such as exhaust gases, carbon monoxide, phthalates and lead, which are known to the State of California to be carcinogenic as well as detrimental to childbirth and reproduction.
- To minimize exposure, avoid breathing exhaust gases, do not put the engine in Neutral except as necessary, service your vehicle in a well-ventilated area and wear gloves or wash your hands frequently when servicing your vehicle.
- Further information is available at: **www.P65Warnings.ca.gov/passenger_vehicle**

Important data for refueling stop:

Fuel	
Recommended fuel quality	Premium unleaded (max. 15% ethanol, E15) 89 AKI (95 ROZ/RON) 90 AKI
Alternative fuel quality	Regular unleaded (restrictions with regard to power and fuel consumption) (max 15% ethanol, E10/E15) 87 AKI (91 ROZ/RON) 87 AKI
Usable fuel quantity	Approx. 7 gal (Approx. 26.5 l)
Reserve fuel quantity	Approx. 1.1 gal (Approx. 4 l)
Tire inflation pressure	
Front tire pressure	42.1 psi (2.9 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

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06-2021, 1st edition, 07