



**BMW
MOTORRAD**

RIDER'S MANUAL

R 1300 RS



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 this rider's manual 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 this rider's manual as well. It is an important part of your vehicle.

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

BMW Motorrad.

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QUICK & EASY REFERENCE


This rider's manual has been designed to provide quick and efficient orientation. The quickest way for you to find information on specific topics is to consult the comprehensive index at the end of the rider's manual. If you would like to start with a quick overview of your vehicle, this information has been provided in chapter 2. All preventive 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.


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 a repair procedure.
-  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.	RECW	Rear-end impact warning (Rear End Collision Warning).
OA	Optional accessories. BMW Motorrad optional accessories can be purchased and retrofitted at your authorized BMW Motorrad dealer.	TPC	Tire Pressure Control (TPC).
ABS	Anti-Lock Brake System.	SWW	Lane change warning.
ACC	Distance control (Active Cruise Control).	<hr/>	
ASA	Automated shift assistant.	EQUIPMENT	
DSA	Dynamic Suspension Adjustment.	When you ordered your BMW Motorrad, you chose various custom equipment items. This rider's manual describes optional equipment (OE) and selected optional accessories (OA) offered by BMW. Please bear in mind that it may also contain descriptions of equipment that you might not have selected. 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.	
DTC	Dynamic Traction Control.		
DWA	Anti-theft alarm.		
EWS	Electronic immobilizer.		
FCW	Forward Collision Mitigation.		
MSR	Engine drag torque control.		

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TECHNICAL DATA

All dimensions, weights and performance data contained in this rider's manual 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 this rider's manual serve as points of reference. The vehicle-specific data may deviate from these, for example, as a result of the selected optional equipment, the national-market version or country-specific measuring procedures. Detailed values can be obtained from the registration documents or requested from your authorized BMW Motorrad dealer or other qualified service partner or repair shop. The information on the vehicle documents always takes precedence over the information in this rider's manual.

CURRENTNESS OF THIS MANUAL

The high safety and quality levels of BMW motorcycles are maintained by constant development work on design, equipment and accessories. For this reason, some aspects of your vehicle may vary from the descriptions in this rider's manual. At the time of manufacturing of the motorcycle, the rider's manual is the most current source. Due to updates after the press date, there can be differences between the printed rider's manual and the online version.

Updated information is available at **bmw-motorrad.com/service**.

ADDITIONAL SOURCES OF INFORMATION

Authorized BMW Motorrad dealer

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

Internet

The rider's manual for your vehicle, the Owner's Manual 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 General Operating Permits for optional accessories are available at

bmw-motorrad.com/certification.

Open source software

Open source software is used in some vehicle components. Information about open source software is available at

bmw-motorrad.com/certification.

DATA MEMORY

General information

Control units are installed in the vehicle. Control units process data received from vehicle sensors, self-generated data or data exchanged between control units, for example. Some control units are required for

safe vehicle operation or provide riding assistance, such as rider assistance systems. Control units also make comfort and infotainment functions possible.

Information about the stored or exchanged data can be obtained from the vehicle manufacturer, such as in the form of a separate booklet.

Personal references

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

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tion without charge from the locations that store the vehicle user's personal data.

These locations may be:

- The vehicle manufacturer
- Qualified, authorized BMW Motorrad dealer
- Repair shops
- 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 also pay an authorized BMW Motorrad

dealer or a repair shop to read out the data stored in the vehicle.

The vehicle data is exported using the vehicle's legally mandated 12 V diagnostic socket for on-board diagnostics (OBD).

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 speed, 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 com-

ponent, module, system or the surrounding area; for example:

- Operating states of system components, such as fill levels and tire pressure
- Malfunctions 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 an authorized BMW Motorrad dealer or a repair shop. The data is read out using the legally prescribed 12 V socket for on-board diagnostics (OBD) provided on the vehicle.

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 an authorized BMW Motorrad dealer or repair shop during repair or servicing work.

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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

If the vehicle manufacturer provides online services, the particular functions are described in 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.

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BLUETOOTH®

Bluetooth is a close-range wireless technology. Bluetooth devices are short-range devices (transmitting with a limited range) on the license-free ISM frequency band (Industrial, Scientific, Medical) between 2.402...2.480 GHz. They can be operated anywhere in the world without a license being required.

Although Bluetooth is designed for establishing robust connections over short distances, faults are possible as with any other wireless technology. Connections can be subject to interference, can be briefly interrupted or lost entirely. Especially when several devices are operated in one Bluetooth network, there is no guarantee for smooth operation in every situation.

Possible sources of interference:


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

–Shielding by metals or bodies.

CONNECTIVITY FUNCTIONS


Connectivity functions include media, telephony and navigation. Connectivity functions can be used if the instrument cluster is connected to a mobile terminal and a helmet (▶▶▶ 84). You can find more information on the Connectivity functions at:

bmw-motorrad.com/connectivity

 Depending on the mobile terminal, 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 functions such as navigation, the app must be installed on the mobile terminal and be connected to the instrument cluster. The app starts the route guidance and adapts the navigation.

 On some mobile terminals, e.g. with operating system iOS, you must go to the BMW Motorrad Connected App before use.

INTELLIGENT EMERGENCY CALL

—with intelligent emergency call^{OE}

Principle

The intelligent emergency call system makes it possible to place manual or automatic emergency calls in the event of an accident, for example. The emergency calls are answered by an emergency call center authorized by the vehicle manufacturer.

For information on operating intelligent emergency call and its functions, see the "Operation" chapter (100).

Legal basis

The intelligent emergency call system processes personal data in ways that comply with the following regulations:

- Protection of personal data: Directive 95/46/EC of the European Parliament and of the Council.
- Protection of personal data: Directive 2002/58/EC of the European Parliament and of the Council.

The legal bases for the activation and operation of the intelligent emergency call system

are the signed ConnectedRide contract for this function, and the corresponding laws, regulations, and directives of the European Parliament and European Council.

The relevant regulations and directives govern the protection of individuals when processing personal data.

The intelligent emergency call system processes personal data in compliance with European guidelines concerning personal data protection.

The intelligent emergency call system processes personal data only with the consent of the vehicle owner.

The intelligent emergency call system and other services with additional benefits may only process personal data with the express consent of the individual affected by the data processing, for example, the vehicle owner.

SIM card

The intelligent emergency call system is operated via mobile communications using the SIM card installed in the vehicle.

The SIM card is permanently registered to the mobile phone network to enable a fast con-

14 GENERAL INSTRUCTIONS

nection setup. The data is sent to the vehicle manufacturer in the event of an emergency.

Quality improvement

The data transmitted in the event of an emergency call is also used by the vehicle manufacturer to improve the quality of products and services.

Position finding

The vehicle position can be determined exclusively by the mobile phone network provider based on their mobile phone cell towers. The service provider cannot link the vehicle identification number to the phone number of the installed SIM card. Only the vehicle manufacturer can link the vehicle identification number and phone number of the installed SIM cards.

Emergency call log data

The emergency call log data is stored in the vehicle memory. The oldest log data is deleted regularly. The log data includes for example information about when and where an emergency call was initiated. The log data can be read out from the vehicle memory in exceptional cases. The log data is usually

read out only by court order and can only be read out when the relevant devices are connected directly to the vehicle.

Automatic emergency call

The system is designed so that an emergency call is triggered automatically in the event of an accident of a particular severity detected by sensors in the vehicle.

Transmitted information

If the intelligent emergency call system makes an emergency call, it forwards the same information to the authorized emergency call center as the eCall legal emergency call system forwards to the public emergency call center.

Furthermore, the intelligent emergency call system also sends the following additional information to an emergency call center authorized by the vehicle manufacturer and to the public emergency operations center if necessary:

- Accident data, such as the direction of impact detected by the vehicle sensors in order to facilitate planning of the deployment of emergency services.

—Contact information, such as the phone number of the installed SIM card and that of the rider, if available, in order to expedite contact with the individuals involved in the accident.

Data storage

The data related to a triggered emergency call is stored in the vehicle. The data contains information about the emergency call, such as the emergency call location and time.

Audio recordings of emergency calls are stored at the emergency call center.

Customer audio recordings are stored for 24 hours in case the details of the emergency call need to be analyzed. The audio recordings are then deleted.

Emergency call center employee audio recordings are stored for 24 hours for quality assurance purposes.

Disclosure of personal data

The data processed as part of the intelligent emergency call is processed only for the purpose of providing the emergency call service. The vehicle manufacturer discloses information about the data that it processes or continues to store

if necessary as part of its legal obligation.

Regional limitation

For the installed Intelligent Emergency Call system to function properly, the respective national-market vehicle must support the current region.

For more information on regional limitations:

support.bmw-motorrad.com

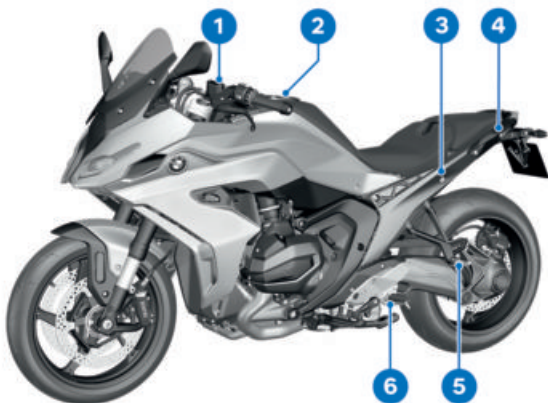
OVERVIEWS

02

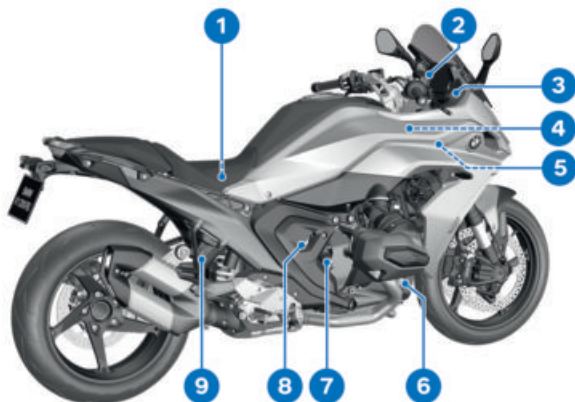
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OVERALL VIEW, LEFT SIDE



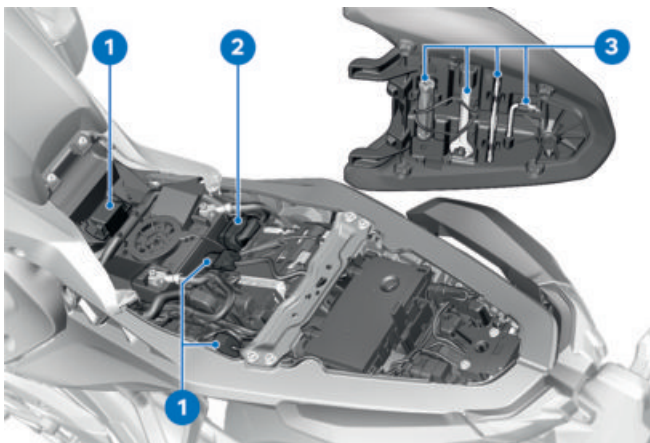
- 1 Clutch fluid reservoir
([▶▶▶ 207](#))
- 2 Fuel filler opening
([▶▶▶ 164](#))
- 3 Seat lock ([▶▶▶ 137](#))
- 4 Passenger grab handle
- 5 Passenger footrest
- 6 Rider footrest

OVERALL VIEW, RIGHT SIDE


- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>1 Payload table</p> <p>2 Brake fluid reservoir for front wheel brake (➡ 205)</p> <p>3 USB charging socket
Notes about use (➡ 235)</p> <p>4 Vehicle identification number (on the steering head)
Type plate (on frame at front right)
Tire pressure table (inner right side trim panel)</p> <p>5 Coolant level indicator (➡ 207)
Coolant tank (➡ 208)</p> | <p>6 Engine oil indicator (➡ 200)</p> <p>7 Oil filler opening (➡ 201)</p> <p>8 Brake fluid reservoir for rear wheel brake (➡ 206)</p> <p>9 12 V socket (➡ 234)</p> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

20 OVERVIEWS

UNDERNEATH THE SEAT



- 1 Fuses (⇒ 227)
- 2 Diagnostic connector (⇒ 229)
- 3 Onboard vehicle tool kit (⇒ 199)

MULTIFUNCTION SWITCH, LEFT

- 1 High beams and headlight flasher (▮▮▮▮ 102)
- 2 Cruise control (▮▮▮▮ 113)
- 3 Hazard warning system (▮▮▮▮ 103)
- 4 Multiple rocker switch (▮▮▮▮ 80)
- 5 Automated shift assistant (ASA) (▮▮▮▮ 111)
- 6 Turn signals (▮▮▮▮ 104)
- 7 Horn
- 8 Rocker button MENU (▮▮▮▮ 79)
- 9 Multi-Controller (▮▮▮▮ 78)
- 10 Function list (▮▮▮▮ 80)

22 OVERVIEWS

MULTIFUNCTION SWITCH, RIGHT

—without intelligent emergency call^{OE}



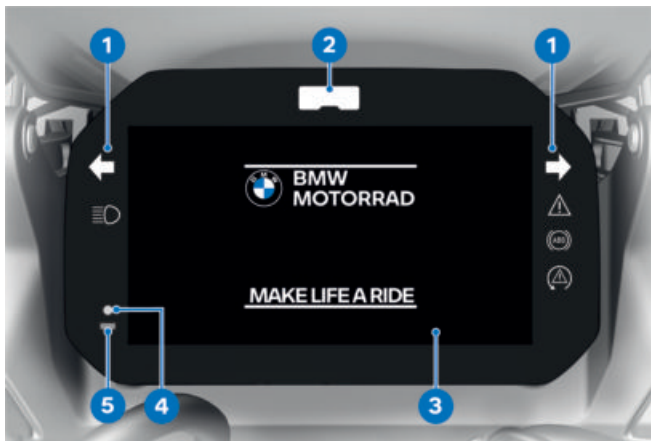
- 1** Steering lock
Central locking system
Ignition (➡ 95)
- 2** Riding mode (➡ 108)
- 3** Emergency-off switch
(➡ 99)
Immobilizer (➡ 159)
- 4** Starting the engine
(➡ 153)

MULTIFUNCTION SWITCH, RIGHT—with intelligent emergency call^{OE}

- 1** Steering lock
Central locking system
Ignition (➡ 95)
- 2** Riding mode (➡ 108)
- 3** Emergency-off switch
(➡ 99)
Immobilizer (➡ 159)
- 4** Starter button (➡ 153)
- 5** SOS button
Intelligent emergency call
(➡ 153)

24 OVERVIEWS

INSTRUMENT CLUSTER



- 1 Indicator and warning lights (☞ 28)
- 2 Shiftpoint light (☞ 127)
- 3 Instrument cluster (☞ 30)
- 4 Indicator light DWA (☞ 130)
Keyless Ride (☞ 94)
- 5 Photodiode (for automatic measurement of the ambient brightness)

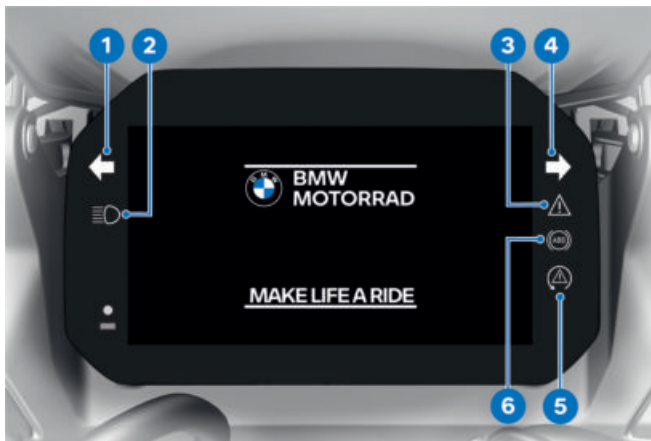
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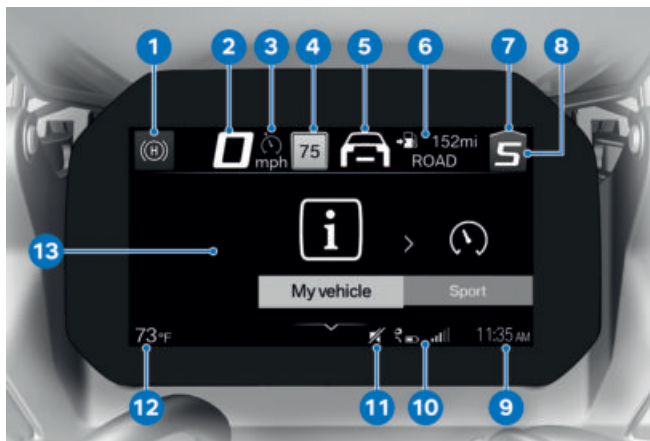
28 DISPLAYS

INDICATOR AND WARNING LIGHTS



- 1 Turn signal, left (➡ 104)
- 2 High beams (➡ 102)
- 3 General warning light (➡ 39)
- 4 Turn signal, right (➡ 104)
- 5 DTC (➡ 64)
- 6 ABS (➡ 63)

MENU VIEW

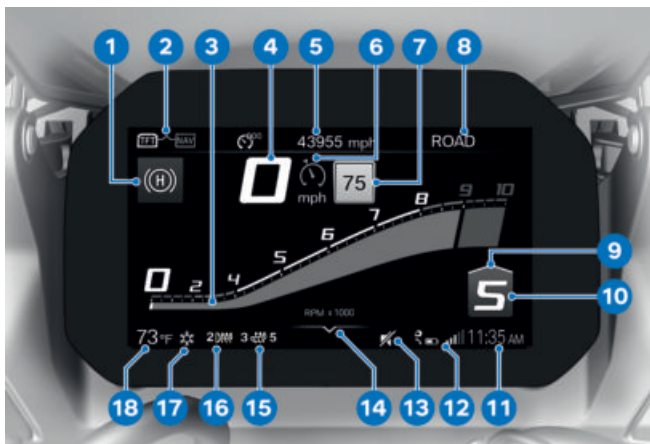


- | | |
|---------------------------------------------------------------------------|--------------------------------------|
| 1 Hill Start Control (➡ 68) | 12 Outside temperature (➡ 49) |
| 2 Speedometer | 13 Menu area |
| 3 Cruise control (➡ 113) | |
| 4 Speed Limit Info (➡ 89) | |
| 5 Distance control (➡ 120)
Forward Collision Mitigation (➡ 122) | |
| 6 Rider info. status line (➡ 83) | |
| 7 Uphift recommendation (➡ 32) | |
| 8 Gear display | |
| 9 Clock (➡ 84) | |
| 10 Connection status | |
| 11 Muting (➡ 84) | |

30 DISPLAYS

PURE RIDE VIEW

START SCREEN





- 1 Hill Start Control (►►► 68)
- 2 Changing operating focus (►►► 86)
- 3 Tachometer (►►► 31)
- 4 Speedometer
- 5 Status line (►►► 83)
- 6 Cruise control (►►► 113)
- 7 Speed Limit Info (►►► 89)
- 8 Riding mode (►►► 108)
- 9 Upshift recommendation (►►► 32)
- 10 Gear display, "N" (Neutral) is displayed in the neutral position.
- 11 Clock (►►► 84)
- 12 Connection status (►►► 85)
- 13 Muting (►►► 84)
- 14 Operating assistance
- 15 Rider's seat heater (►►► 134)
- 16 Heated grip settings (►►► 133)
- 17 External temperature warning (►►► 49)
- 18 Outside temperature


TACHOMETER



- 1 Scale
- 2 High / red engine speed range
- 3 Needle
- 4 Drag pointer

 The RPM range shaded in red changes depending on the coolant temperature: The colder the engine, the lower the rotational speed at which the red-shaded rotational speed range begins. The warmer the engine, the higher the rotational speed at which the red-shaded rotational speed range begins.

 The solid red rotational speed range indicates the current maximum speed, depending on, for example, break-in service or faults in the engine control.

 When the shift light flashes, the revolution counter also flashes.

32 DISPLAYS

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 **2** status line or in the Pure Ride **1** view signals the economically best time for an upshift.

- with Automated shift assistant^{OE}

 In automatic mode **D**, the upshift recommendation is inactive.◀

SPORT VIEW

SPORT 1



- | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| <p>1 Maximum DTC torque reduction</p> <p>2 Current DTC torque reduction</p> <p>3 DTC control value</p> <p>4 Tachometer</p> <p>5 Maximum braking deceleration</p> <p>6 Current braking deceleration</p> <p>7 Current angle of inclination</p> <p>8 Maximum angle of inclination</p> | <p>9 Unit for tachometer: 1000 RPM</p> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|

34 DISPLAYS

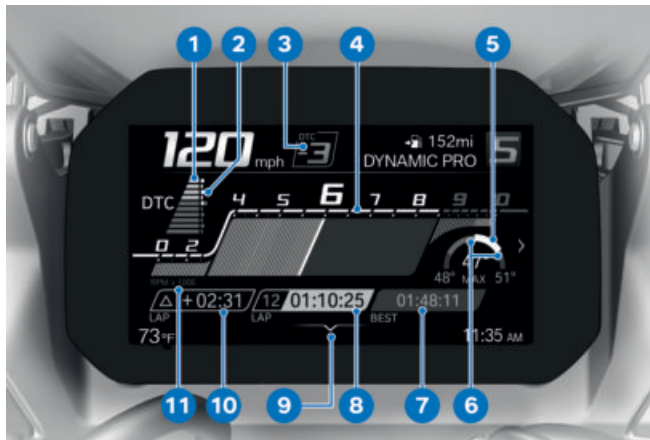
SPORT 2

—With Performance^{OE}



- | | |
|-----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| 1 Maximum DTC torque reduction | 6 Reference time: the fastest lap of the laps currently saved, or the fastest lap ever saved (128) |
| 2 Current DTC torque reduction | 7 Current lap time |
| 3 DTC control value | 8 Unit for tachometer: 1000 RPM |
| 4 Tachometer | 9 Operating assistance |
| 5 Difference between the last lap time and the reference time, or difference between the current lap time and the reference time | |

SPORT 3

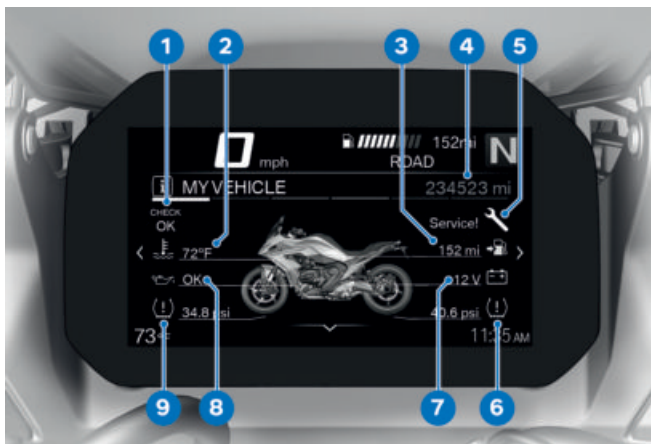
-With Performance^{OE}

- | | | | |
|----------|-----------------------------------------------------------------------------------------------------|-----------|--------------------------------------------------------------------------------------------------------------------------------|
| 1 | Current DTC torque reduction | 8 | Current lap time |
| 2 | Maximum DTC torque reduction | 9 | Operating assistance |
| 3 | DTC control value | 10 | Difference between the last lap time and the reference time, or difference between the current lap time and the reference time |
| 4 | Tachometer | 11 | Unit for tachometer: 1000 RPM |
| 5 | Current angle of inclination | | |
| 6 | Maximum angle of inclination | | |
| 7 | Reference time: the fastest lap of the laps currently saved, or the fastest lap ever saved (▶▶ 128) | | |

36 DISPLAYS

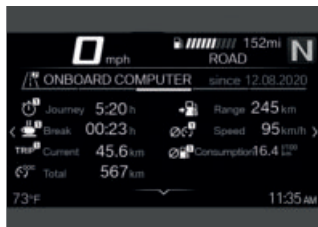
MY VEHICLE VIEW

START SCREEN



- 1 Check Control display
Layout (►►► 39)
- 2 Coolant temperature
(►►► 55)
- 3 Range (►►► 32)
- 4 Odometer
- 5 Service display (►►► 74)
- 6 Rear tire pressure (►►► 37)
- 7 Voltage of the vehicle
electrical system
(►►► 222)
- 8 Engine oil level (►►► 55)
- 9 Front tire pressure
(►►► 37)

On-board computer and travel on-board computer



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

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 instrument cluster with temperature compensation and are always based on the following tire air temperature:


68 °F (20 °C)



If the tire icon appears yellow or red at the same time, the display is a warning. The pressure differential is highlighted with an exclamation mark of the same color.

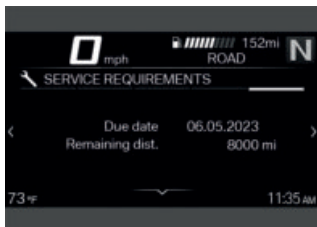
38 DISPLAYS

 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 further information about the BMW Motorrad tire pressure control (TPM), see the Technology in detail (➔ 188) chapter.

Service display




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.

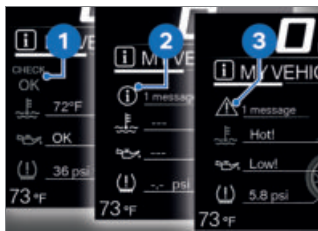
INDICATOR LIGHTS

Layout

Warnings are indicated by the corresponding warning light. Warnings are indicated by the general warning light in combination with a dialog in the instrument cluster. 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.

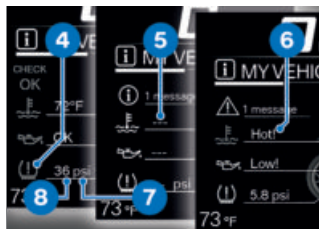
You will find an overview of the potential warnings on the following pages.



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

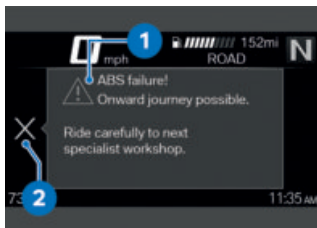
- Green: (OK) Current value is optimal.
- Blue: (Cold!) Current temperature is low.
- Yellow: (Low!/High!) Current value is too low or too high.
- Red: (Hot!/High!) Current temperature or value is too high.

40 DISPLAYS

–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.

can go back to the message as long as the fault is present.




















Check Control dialog























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

















- If the icon **2** is active, you can acknowledge this 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. You

Overview of warning indicators




















Indicator and warning lights	Display text	Meaning
	 is displayed.	External temperature warning (▣▣▣▣ 49)
 lights up yellow.	 Remote key not in range.	Radio-operated key outside reception range (▣▣▣▣ 49)
 lights up yellow.	 Keyless Ride failure!	Keyless Ride malfunction (▣▣▣▣ 50)
 lights up yellow.	 Remote key battery low.	Replacing the battery of the radio-operated key (▣▣▣▣ 50)
 lights up yellow.	 Vehicle voltage critical!	Voltage of the vehicle electrical system is critical (▣▣▣▣ 50)
 blinks yellow.	 Battery critically low!	Charging voltage critical (▣▣▣▣ 51)
 lights up yellow.	 Fault in the on-board battery.	Fault in the vehicle battery (▣▣▣▣ 51)
 lights up yellow.	 On-board battery overheated.	Vehicle battery overheated (▣▣▣▣ 51)
 blinks red.	 Serious fault in the power supply!	Severe fault in the voltage supply (▣▣▣▣ 52)

42 DISPLAYS


















Indicator and warning lights	Display text	Meaning
 lights up yellow.	 The faulty light source is displayed.	Faulty light source (▶▶▶▶ 52)
 blinks yellow.	 The faulty light source is displayed.	
 lights up yellow.	 Light control failure!	Light control unit failed (▶▶▶▶ 53)
	 Anti-theft alarm batt. capacity low.	Anti-theft alarm system battery is weak (▶▶▶▶ 53)
 lights up yellow.	 Anti-theft alarm battery discharged.	Anti-theft alarm system battery discharged (▶▶▶▶ 54)
 lights up yellow.	 Anti-theft alarm system failure.	DWA malfunction (▶▶▶▶ 54)
 lights up yellow.	 Engine oil level. Check engine oil level.	Low engine oil level (▶▶▶▶ 55)
 lights up yellow.	 Engine too hot!	Engine temperature high (▶▶▶▶ 55)
 lights up red.	 Engine overheating!	Engine overheated (▶▶▶▶ 56)
 lights up yellow.	 No communication with engine control.	Engine control malfunction (▶▶▶▶ 57)
 lights up.		
 lights up yellow.	 Fault in the engine control.	Engine in emergency operation mode (▶▶▶▶ 57)




















Indicator and warning lights	Display text	Meaning
 blinks red.	 Serious fault in the engine control.	Serious fault in the engine control (▣▣▣ 57)
 lights up yellow.	 Tire pressure not at setpoint.	Tire pressure is the limit range of approved tolerance (▣▣▣ 58)
 blinks red.	 Tire pressure not at setpoint.  Tire Press. Monitor. Loss of pressure.	Tire pressure is outside the approved tolerance range (▣▣▣ 58)
	 "----"	Transmission fault (▣▣▣ 59)
 lights up yellow.	 "----"	Sensor faulty or system fault (▣▣▣ 60)
 lights up yellow.	 Tire Press. Monitor failure!	Tire Pressure Monitor (TPM) malfunction (▣▣▣ 60)
 lights up yellow.	 TPM sensors battery low.	Battery of the tire pressure sensor weak (▣▣▣ 60)
	 Fall sensor faulty.	Malfunction of fall sensor (▣▣▣ 61)
	 Cannot start engine.	Motorcycle has fallen over (▣▣▣ 61)

44 DISPLAYS




Indicator and warning lights	Display text	Meaning
 lights up yellow.	 Emergency call system restricted.	Emergency call function has limited availability (▶▶▶▶ 61)
 lights up yellow.	 Emergency call system failure.	Emergency call function failed (▶▶▶▶ 62)
 lights up yellow.	 Side stand monitoring faulty	Malfunction of side stand monitor (▶▶▶▶ 62)
 lights up yellow.	 Center stand not folded in completely.	Center stand not fully folded in (▶▶▶▶ 62)
 flashes regularly.		ABS self-diagnosis not completed (▶▶▶▶ 63)
 lights up yellow.	 Limited ABS availability!	ABS fault (▶▶▶▶ 63)
 lights up.		
 lights up yellow.	 ABS failure!	ABS failure (▶▶▶▶ 63)
 lights up.		
 lights up yellow.	 ABS Pro failure!	ABS Pro failure (▶▶▶▶ 64)
 lights up.		
 flashes irregularly.		ABS-control on front wheel only (▶▶▶▶ 64)

46 DISPLAYS

Indicator and warning lights	Display text	Meaning
 lights up yellow.	 Load compensation failed.	Vehicle load compensation malfunction (➡ 67)
 lights up yellow.	 Low fuel.	Fuel has reached reserve volume (➡ 68)
	 is displayed in green.	Hill Start Control active (➡ 68)
	 blinks yellow.	Hill Start Control automatically deactivated (➡ 68)
	 is displayed. HSC not available. Engine not running.	Hill Start Control cannot be activated (➡ 68)
 lights up yellow.	 Cruise control not functioning.	Cruise control malfunctioned (➡ 69)
 lights up yellow.	 ACC temporarily failed.	Distance control has failed temporarily (➡ 69)
 lights up yellow.	 Distance control failed.	Distance control failed (➡ 69)
 lights up yellow.	 Front-collision warning temporarily failed.	Temporary Forward Collision Mitigation malfunction (➡ 70)
 lights up yellow.	 Front-collision warning failed.	Forward Collision Mitigation malfunction (➡ 70)

Indicator and warning lights	Display text	Meaning
 lights up yellow.	 Lane change warning temporarily failed.	Temporary lane change warning malfunction (➡ 70)
 lights up yellow.	 Lane change warning failed.	Lane change warning malfunction (➡ 71)
	 Gear indicator flashes.	Gear not taught in (➡ 71)
	 Gear indicator flashes.	Shifting to Neutral failed (➡ 71)
 lights up yellow.	 Gearshift faulty!	Gearshift malfunction (➡ 72)
 lights up yellow.	 Gearbox fault.	Fault in the transmission (➡ 72)
 lights up yellow.	 Clutch temperature high!	Clutch temperature high (➡ 72)
 lights up red.	 Clutch faulty!	Clutch malfunction (➡ 73)
 lights up red.	 Gearbox damaged!	Serious fault in the transmission (➡ 73)
	 blinks.	Immobilizer not activated (➡ 73)
 flashes in green.		Hazard warning flasher switched on (➡ 74)
 flashes in green.		

48 DISPLAYS

Indicator and warning lights	Display text	Meaning
	 is displayed in white. Service due!	Service due (▶ 74)
 lights up yellow.	 is displayed in yellow. Service overdue!	Service appointment overdue (▶ 74)

Outside temperature

The outside temperature is displayed in the status line of the instrument cluster.

Engine 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 ice crystal symbol flashes in the status line of the instrument cluster.

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, also above approx. 37 °F (approx. 3 °C)

Risk of accident

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

- Use caution when riding.

Radio-operated key outside reception range



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.
- Replace the battery of the radio-operated key. (► 97)
- Use the wallet key for further driving.
- Battery of radio-operated key is dead or radio-operated key is lost. (► 96)
- If the Check Control dialog appears while riding, remain


50 DISPLAYS

calm. You can continue riding; the engine will not turn off.

- Have a faulty radio-operated key replaced by an authorized BMW Motorrad retailer.

Keyless Ride malfunction

 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 repair shop immediately if possible, ideally an authorized BMW Motorrad dealer.

- » Engine start can no longer be turned on using Keyless Ride.
- » DWA can no longer be activated.

Replacing the battery of the radio-operated key


 lights up yellow.


 Remote key battery low. Function limited. 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.
- Replace the battery of the radio-operated key. (➔ 97)

Voltage of the vehicle electrical system is critical

 lights up 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. The vehicle electronics will drain the battery.

Possible cause:

Electrical loads with high electrical consumption, e.g. heating vests, are in operation; too many electrical loads are in operation at the same time, or the battery is defective.

- Switch off electrical loads that are not needed or disconnect

them from the electrical system.

- If the fault persists or occurs without any electrical loads connected, have the fault corrected as soon as possible at a repair shop, preferably an authorized BMW Motorrad dealer.

Charging voltage critical



blinks 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. The vehicle electronics will drain the battery. Possible cause:

Alternator is malfunctioning, battery is defective or fuse is burned through.

- Have the malfunction corrected as soon as possible at a repair shop, preferably an authorized BMW Motorrad dealer.

Fault in the vehicle battery



lights up yellow.



Fault in the on-board battery.

Limited onward journey possible. Drive carefully to nearest specialist workshop.

Possible cause:

Communication with the vehicle battery is disrupted.

- Have the fault corrected at a repair shop, preferably an authorized BMW Motorrad dealer.

Possible cause:

A battery type is being used that does not correspond to the coding of the control unit.

- After changing the battery type, have the coding checked by a repair shop, preferably an authorized BMW Motorrad dealer.

Vehicle battery overheated



lights up yellow.



On-board battery overheated. Turn off the engine or continue with limited journey to cool down.

52 DISPLAYS

Possible cause:

The temperature sensor has detected a high temperature in the vehicle battery.

- If possible, ride in the partial load range or shut off the engine to cool off the vehicle battery.
- If the vehicle battery temperature is frequently too high, have the fault rectified as quickly as possible by a repair shop, preferably an authorized BMW Motorrad dealer.

Severe fault in the voltage supply



blinks red.



Serious fault in the power supply! Stop immediately! Have it checked by a specialist workshop.



WARNING

Failure of vehicle systems

Accident hazard

- Do not continue riding.

Possible cause:

The temperature sensor has detected a critical temperature in the vehicle battery or the electrical system voltage is

too high. The engine is about to be shut off.

- Stop the vehicle immediately.
- Have the malfunction corrected as soon as possible at a repair shop, preferably an authorized BMW Motorrad dealer.

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!




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 road traffic due to failure of the lighting on the vehicle

Safety risk


- Replace defective lighting as soon as possible. Please contact a repair shop for this purpose, preferably an authorized BMW Motorrad dealer.


Possible cause:

One or more light sources are faulty.

- Identify faulty lights by visually inspecting them.
- Have the LED light source replaced in full; for details please contact a repair shop, 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 road traffic due to failure of the vehicle lighting

Safety risk

- Have the malfunction corrected as soon as possible at a repair shop, preferably an authorized BMW Motorrad dealer.

The vehicle lighting has failed partially or completely.

Possible cause:


The light control unit has diagnosed a communication fault.


- Have the malfunction corrected as soon as possible at a repair shop, preferably an authorized BMW Motorrad dealer.

Anti-theft alarm system battery is weak

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

54 DISPLAYS

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


- Contact a repair shop, preferably an authorized BMW Motorrad dealer.

Anti-theft alarm system battery discharged

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

 lights up yellow.

 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 DWA battery is discharged. Alarm triggering is not possible after the vehicle battery is disconnected. All other functions of the DWA are functional.

- Contact a repair shop, preferably an authorized BMW Motorrad dealer.

DWA malfunction

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

 lights up yellow.

 Anti-theft alarm system failure. Have checked by a specialist workshop.

Possible cause:

The DWA control unit has diagnosed a communication fault.

- Contact a repair shop, preferably an authorized BMW Motorrad dealer.
- » 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; multiple measurements may be necessary:

- Engine in Neutral for at least 20 seconds.
- Engine is at operating temperature.
- Vehicle stands vertically on a level surface.
- Side stand is folded in.
- without dynamic suspension adjustment^{OE}
- The suspension strut is accordingly adapted to the load state.

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

Low engine oil level



lights up yellow.



Engine oil level
Check engine oil level.

Possible cause:

The electronic oil level sensor has detected a low engine oil level. If the motorcycle is not standing vertically on a level surface, the message can also appear even when the oil level is correct. At next refueling stop:

- Check engine oil level.
(200)

If oil level is too low:

- Top up engine oil. (201)

If the oil level is correct:

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

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

- Contact a repair shop, preferably an authorized BMW Motorrad dealer.

Engine temperature high



lights up yellow.



Engine too hot! Continue driving at low revs to cool engine.



ATTENTION

Riding with overheated engine

Engine damage

- Be sure to observe the measures listed below.

Possible cause:

Coolant level is too low.

- Check the coolant level.
(207)

If coolant level is too low:

- Allow the engine to cool down. Top up coolant. Have the cooling system checked at a repair shop, preferably by an authorized BMW Motorrad dealer.

Possible cause:

The temperature sensor has detected a high temperature in the engine.

- Ride in the partial load range if possible to cool the engine.
- If the engine temperature is more frequently too high, have the fault rectified as quickly as possible by a repair shop, preferably an authorized BMW Motorrad retailer.

Engine overheated



lights up red.



Engine overheating!
Come to a safe stop,
then stop the engine.



ATTENTION

Riding with overheated engine

Engine damage

- Be sure to observe the measures listed below.

Possible cause:

Coolant level is too low.

- Check the coolant level.
(207)

If coolant level is too low:

- Allow the engine to cool down. Top up coolant. Have the cooling system checked at a repair shop, preferably by an authorized BMW Motorrad dealer.

Possible cause:

Engine is overheated.

- Carefully come to a stop and turn off the engine until it has cooled down.
- If the engine overheats more frequently, have the fault corrected as soon as possible by a repair shop, preferably an

authorized BMW Motorrad dealer.

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.

- You may continue riding. Have the malfunction corrected as soon as possible at a repair shop, preferably an authorized BMW Motorrad dealer.

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 repair shop, preferably an authorized BMW Motorrad dealer.

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

Emergency operation mode can damage the engine

Risk of accident

- Drive slowly and refrain from accelerating quickly and overtaking other vehicles.
- If possible, have the vehicle picked up and let the malfunction be corrected at a repair shop, preferably an authorized BMW Motorrad dealer.

Possible cause:

The fill level in the fuel tank is too low or the engine control unit has diagnosed a fault. Serious faults can occur as a result. The engine is in emergency operation mode.

- Continued riding is possible, however it is not recommended.
- Avoid high load and engine speed ranges if possible.
- Refueling procedure. (▶▶▶ 164)
- Have the malfunction corrected as soon as possible at a repair shop, preferably an authorized BMW Motorrad dealer.

Tire pressure is the limit range of approved tolerance



lights up 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:

» Temperature compensation (▶▶▶ 188)

» Tire pressure adjustment (▶▶▶ 189)


» 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
- Tire pressure table

Tire pressure is outside the approved tolerance range



blinks red.

 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:

» Temperature compensation (▣▶ 188)

» Tire pressure adjustment (▣▶ 189)

» 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
- Tire pressure table
- Have the tire checked by a repair shop for damage, preferably by an authorized BMW Motorrad dealer.

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 (▣▶ 188).



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.)

- Observe the TPM display at higher speed. This is a permanent fault only when the

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general warning light also lights up. In this case:


- Have the fault corrected at a repair shop, preferably an authorized BMW Motorrad dealer.


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 fault corrected at a repair shop, preferably an authorized BMW Motorrad dealer.

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 fault corrected at a repair shop, preferably an authorized BMW Motorrad dealer.

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 repair shop, preferably an authorized BMW Motorrad dealer.
- » 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 repair shop, preferably an authorized BMW Motorrad dealer.

Malfunction of fall sensor


 Fall sensor faulty. Have checked by a specialist workshop.

Possible cause:

The fall sensor is not functioning.

- Contact a repair shop, preferably an authorized BMW Motorrad dealer.

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.

Emergency call function has limited availability

—with intelligent emergency call^{OE}




lights up yellow.



Emergency call system restricted. If it occurs again, have it checked by a specialist workshop.

Possible cause:

The emergency call cannot be established automatically or via BMW.

- Please refer to page  100 for information on using the intelligent emergency call.
- Contact a repair shop, preferably an authorized BMW Motorrad dealer.

62 DISPLAYS

Emergency call function failed

—with intelligent emergency call^{OE}



lights up yellow.



Emergency call system failure. Schedule an appointment at a specialist workshop.

Possible cause:

The control unit of the Assist system has diagnosed a fault. The assist system has failed.

- Note that the emergency call cannot be placed.
- Contact a repair shop, preferably an authorized BMW Motorrad dealer.

Malfunction of side stand monitor



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 turned off if the speed falls below the minimum limit. The journey cannot be continued.

min. 3 mph (min. 5 km/h)

- Contact a repair shop, preferably an authorized BMW Motorrad dealer.

Center stand not fully folded in

—with center stand^{OE}



lights up yellow.



Center stand not folded in completely. Come to a safe stop and check center stand.

Possible cause:

The center stand has not been completely folded in.

- Stop carefully and check the center stand.
- Make sure that the center stand is fully folded in.
- If the malfunction persists, have the malfunction corrected as soon as possible at a repair shop, preferably an authorized BMW Motorrad dealer.

ABS self-diagnosis not completed



blinks.

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 vehicle must reach a minimum speed with the engine running: min. 3 mph (min. 5 km/h))

- Ride off slowly. Note that the anti-lock braking system function is only available after the self-diagnosis has been 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 error. 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 (▣▣▣▣ 174).
- Have the malfunction corrected as soon as possible at a repair shop, preferably an authorized BMW Motorrad dealer.

ABS failure



lights up yellow.



lights up.



ABS failure! Onward journey possible.

Ride carefully to next specialist workshop.

Possible cause:

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

- You may continue riding. Take note of additional information on special situations that can lead to an ABS fault message (▣▣▣▣ 174).
- Have the malfunction corrected as soon as possible at a repair shop, preferably

64 DISPLAYS

an authorized BMW Motorrad dealer.

ABS Pro failure



lights up yellow.



lights up.



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

Possible cause:

The monitoring of the ABS Pro function 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. Observe additional information on special situations that can lead to a ABS Pro fault message (▮▮▮▮ 174).
- Have the malfunction corrected as soon as possible at a repair shop, preferably an authorized BMW Motorrad dealer.

ABS-control on front wheel only

—with riding modes Pro^{OE}



flashes irregularly.

Possible cause:

The ABS control for the rear wheel is turned off in the currently selected riding mode. The rear wheel brake can block the rear wheel.

- Check the settings of the riding mode.
- More detailed information on configuring the riding modes can be found in the "Technology in detail" chapter (▮▮▮▮ 184).

DTC intervention



blinks rapidly.

Possible cause:

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 riding situation has passed.

- You may continue riding. Use caution when riding.

DTC self-diagnosis not completed

blinks 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. Note that the DTC function is only available after the self-diagnosis has been completed.

DTC turned off

lights up.



Off!



Traction control deactivated.

Possible cause:

The DTC system was turned off by the rider.

- Operate the DTC. (▶▶ 104)

Limited DTC availability

lights up yellow.



lights up.



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

Possible cause:

The engine control unit has detected a DTC fault.

- Note that the DTC function and other electronic stability control systems are available with limitations only.
- You may continue riding. Observe additional information on situations that can lead to a DTC fault (▶▶ 176).
- Have the malfunction corrected as soon as possible at a repair shop, preferably an authorized BMW Motorrad dealer.

DTC error

lights up yellow.



lights up.



Traction control failure! Onward journey possible. Ride

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carefully to the next specialist workshop.


Possible cause:


The engine control unit has detected a DTC fault.

- Note that the DTC function and other electronic stability control systems are not available.
- You may continue riding. Observe additional information on situations that can lead to a DTC fault (→ 176).
- Have the malfunction corrected as soon as possible at a repair shop, preferably an authorized BMW Motorrad dealer.

Fault when adjusting damper

—with dynamic suspension adjustment^{OE}

 lights up yellow.

 Damping adjustment failed. Limited onward journey possible. Drive carefully to nearest workshop.

Possible cause:


Components of the electronic damping adjustment are faulty or the communication with the control unit is disrupted. Motorcycle damping is in this condition very firm and riding is


rather uncomfortable - in particular on rough roads.

- Note that the option of setting the damping is not available.
- Have the malfunction corrected as soon as possible at a repair shop, preferably an authorized BMW Motorrad dealer.

Chassis adjustment restricted

—with dynamic suspension adjustment^{OE} dynamic suspension adjustment

 lights up yellow.

 Suspension adjustment limited. Onward journey possible. Have checked by workshop.

Possible cause:

Components of the electronic chassis and suspension adjustment are faulty or the communication with the control unit is disrupted.

- Bear in mind that damping and riding position setting options are not available or only available to a limited extent.
- Have the malfunction corrected as soon as possible at a repair shop, preferably an authorized BMW Motorrad dealer.

Chassis adjustment failed

—with^{OE} dynamic suspension adjustment



lights up yellow.



Suspension adjustment failed. Limited onward journey possible. Ride carefully to nearest workshop.

Possible cause:

Components of the electronic chassis and suspension adjustment are faulty or the communication with the control unit is disrupted.

- Bear in mind that damping and riding position setting options are not available.
- Have the malfunction corrected as soon as possible at a repair shop, preferably an authorized BMW Motorrad dealer.

Prop-up assistant temporarily deactivated

—with center stand^{OE}



Jacking aid temporarily disabled. Activating too frequently can cause damage. Switch ignition on/off.

Possible cause:

The prop-up assistant was actuated multiple times in succession.

- To maintain the battery charge, avoid actuating the prop-up assistant multiple times.
- Before actuating the prop-up assistant again, turn the ignition off and on again.

Vehicle load compensation malfunction

—with^{OE} dynamic suspension adjustment



lights up yellow.



Load compensation failed. Observe riding position. Have checked by a workshop.

Possible cause:

Components of the electronic chassis and suspension adjustment are faulty or the communication with the control unit is disrupted. Riding the motorcycle may be uncomfortable, particularly on rough roads.

- Note that the vehicle load compensation is not available.
- Have the malfunction corrected as soon as possible at a repair shop, preferably

68 DISPLAYS

an authorized BMW Motorrad dealer.

Fuel has reached reserve volume



lights up yellow.



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 most, the fuel tank contains only the reserve volume.



Reserve fuel quantity

approx. 1.1 gal (approx. 4 l)

- Refueling procedure. (▮▮▮ 164)

Hill Start Control active



is displayed in green.

Possible cause:

The Hill Start Control (▮▮▮ 191) was activated by the rider.

- Turn off the Hill Start Control.
- Operate Hill Start Control. (▮▮▮ 125)

Hill Start Control automatically deactivated



blinks yellow.

Possible cause:

Hill Start Control was deactivated automatically.

- Side stand was folded out.
» Hill Start Control is deactivated when the side stand is folded out.
- Engine was stopped.
» Hill Start Control is deactivated when the engine is shut off.
- Operate Hill Start Control. (▮▮▮ 125)

Hill Start Control cannot be activated



is displayed.

HSC not available. Engine not running.

Possible cause:

The Hill Start Control cannot be activated.

- Fold in side stand.

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

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 is not available.
- You may continue riding. Have the malfunction corrected as soon as possible at a repair shop, preferably an authorized BMW Motorrad dealer.

Distance control has failed temporarily

—with Riding Assistant^{OE}



lights up yellow.



ACC temporarily failed. Check front radar sensor for damage.

Possible cause:

The front radar sensor function is impaired.

- Note that the distance control (ACC) is temporarily unavailable. Cruise control is still available.
- You may continue riding. Check the front radar sensor. Remove contamination or objects covering the radar sensor.
- Observe the vehicle care and cleaning instructions (→ 256).

Distance control failed

—with Riding Assistant^{OE}



lights up yellow.



Distance control failed. Have it checked by a specialist workshop.

Possible cause:

The control unit has detected a fault.

- Note that the distance control (ACC) is not available. Cruise control is still available.
- You may continue riding. Have the malfunction corrected as soon as possible at a repair shop, preferably an authorized BMW Motorrad dealer.

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Temporary Forward Collision Mitigation malfunction

—with Riding Assistant^{OE}



lights up yellow.



Front-collision warning temporarily failed. Check front radar sensor for damage.

Possible cause:

The front radar sensor function is impaired.

- Note that Forward Collision Mitigation is temporarily unavailable.
- You may continue riding. Check the front radar sensor. Remove contamination or objects covering the radar sensor.
- Observe the vehicle care and cleaning instructions (▶▶▶ 256).

Forward Collision Mitigation malfunction

—with Riding Assistant^{OE}



lights up yellow.



Front-collision warning failed. Have checked by a specialist workshop.

Possible cause:

The control unit has detected a fault.

- Note that Forward Collision Mitigation is not available.
- You may continue riding. Have the malfunction corrected as soon as possible at a repair shop, preferably an authorized BMW Motorrad dealer.

Temporary lane change warning malfunction

—with Riding Assistant^{OE}



lights up yellow.



Lane change warning temporarily failed. Onward journey possible. Check radar sensor for impairment.

Possible cause:

The rear radar sensor function is impaired.

- Note that the lane change warning is temporarily unavailable.
- You may continue riding. Check the rear radar sensor. Remove contamination or objects covering the radar sensor.
- Observe the vehicle care and cleaning instructions (▶▶▶ 256).

Lane change warning malfunction

—with Riding Assistant^{OE}



lights up yellow.



Lane change warning failed. Onward journey possible. Check by specialist workshop needed.

Possible cause:

The control unit has detected a fault.

- Note that the lane change warning is not available.
- You may continue riding. Have the malfunction corrected as soon as possible at a repair shop, preferably an authorized BMW Motorrad dealer.

Gear not taught in

—with Gearshift Assistant Pro^{OE}



Gear indicator flashes.

Possible cause:

The transmission sensor has not been completely taught in.

- Start engine. (▶▶▶ 153)
- Shift to neutral N.
- Fold the side stand out and back in; do not operate the gearshift lever while doing this.

- Shift all gears with clutch control. In the respective gear, put the throttle grip in the idle position multiple times and then accelerate again.

» 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 (▶▶▶ 189).
- If the teach-in procedure is unsuccessful, have the fault corrected at a repair shop, preferably an authorized BMW Motorrad dealer.

Shifting to Neutral failed

—with Automated shift assistant^{OE}



Gear indicator flashes.

Possible cause:

Shifting to Neutral has failed.


- Have the malfunction corrected as soon as possible at a repair shop, preferably an authorized BMW Motorrad dealer.

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Gearshift malfunction

—with Automated shift assistant^{OE}

 lights up yellow.

 Gearshift faulty! Onward journey possible. Engine start may not be possible. Check at workshop.


Possible cause:


The control unit has detected a malfunction of the shift actuator.

- Note that the gearshift function is no longer available. It may not be possible to engage neutral N.
- You may be able to continue riding in the currently engaged gear. It may not be possible to restart the engine.
- Have the malfunction corrected as soon as possible at a repair shop, preferably an authorized BMW Motorrad dealer.

Fault in the transmission

—with Automated shift assistant^{OE}

 lights up yellow.

 Gearbox fault. Limited onward journey possible. Have it checked by a specialist workshop.

WARNING

Restricted shift operations

Risk of accident

- Drive carefully and avoid overtaking maneuvers.


Possible cause:


The control unit has detected an actuator or sensor fault.

- Note that the gearshift function is available with limitations only.
- Driving off may be more difficult.
- You may continue riding. Have the malfunction corrected as soon as possible at a repair shop, preferably an authorized BMW Motorrad dealer.

Clutch temperature high

—with Automated shift assistant^{OE}

 lights up yellow.

 Clutch temperature high! Onward journey possible. Apply brake when stopped.

Possible cause:

The clutch has been subjected to excessive stress. The engine torque is reduced.

- Apply the brake when stopping on uphill gradients.
- Avoid fast acceleration from a standstill at short intervals.

Clutch malfunction

—with Automated shift assistant^{OE}



lights up red.



Clutch faulty! Stop when it is safe to do so. Stop carefully! Have checked by a specialist workshop.

Possible cause:

The control unit has detected a malfunction of the clutch actuator. Clutch control is out of order.

- Please note that the clutch may no longer be able to disengage.
- Carefully bring the vehicle to a stop and shut down the engine using the emergency-off switch if necessary.
- Have the malfunction corrected as soon as possible at a repair shop, preferably an authorized BMW Motorrad dealer.

Serious fault in the transmission

—with Automated shift assistant^{OE}



lights up red.



Gearbox damaged! Stop when it is safe to do so. Have the fault rectified by a specialist workshop.

Possible cause:

The control unit has detected a serious malfunction of an actuator or the sensor system.

- Note that the clutch is disengaged automatically. Drive power is completely interrupted.
- Carefully bring the vehicle to a stop and shut down the engine using the emergency-off switch if necessary.
- Have the malfunction corrected as soon as possible at a repair shop, preferably an authorized BMW Motorrad dealer.

Immobilizer not activated

—with Automated shift assistant^{OE}



blinks.

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Possible cause:

Engaging the immobilizer has failed.

- Move the motorcycle forwards or backwards briefly.

Hazard warning flasher switched on



flashes in green.



flashes in green.

Possible cause:

The hazard warning flasher was switched on by the rider.

- Operate hazard warning flashers. (103)

Service display



If service is overdue, the due date or the odometer reading at which service was due 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. 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 repair shop, preferably an authorized BMW Motorrad dealer.
- » The operating safety and road safety of the vehicle remains unchanged.
- » The best-possible value retention of the vehicle is ensured.

Service appointment overdue



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 repair shop, preferably an authorized BMW Motorrad dealer.
- » The operating safety and road safety of the vehicle remains unchanged.
- » The best-possible value retention of the vehicle is ensured.

INSTRUMENT CLUSTER

04

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78 INSTRUMENT CLUSTER

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

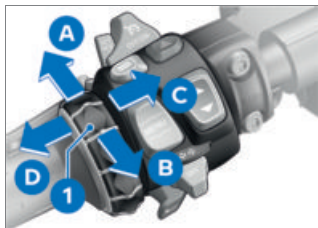
Risk of accident through the use of integrated information systems and communication devices during the journey

- Operate these systems or devices only if the traffic situation allows.
- If necessary, stop and operate the system or devices at a standstill.

When performing functions that can only be operated when the vehicle is stationary, operating feedback is shown in the instrument cluster.

OPERATING ELEMENTS

Multi-Controller



- 1** Multi-Controller
- A** Move the cursor up in lists
Increases the volume
- B** Move the cursor down in lists
Decrease volume
- C** Activate the function according to the feedback
Confirm selection/setting
Browsing through menu screens

- D** Activate or deactivate the function according to the feedback

After settings, return to menu view

Change one hierarchy level up

Browsing through menu screens

Rocker button MENU



Briefly press the top of the MENU 1:

- In Menu view: Change a hierarchy level up.
- In Pure Ride view: Changing the display for rider info. status line.

Press and hold the top of the MENU 1:

- In Menu view: Open Pure Ride view.
- In Pure Ride view: Reset on-board computer value.
- Change the operating focus to the navigator.

Press the bottom of the MENU 1:

- Change a hierarchy level down.
- Confirm the selection/setting.

Press and hold the bottom of the MENU 1:

- Return to the last menu, after a menu change has been previously carried out by pressing and holding the top of the rocker button.



Navigation instructions are displayed as a dialog if you have not gone to the Navigation menu. Operation of the MENU rocker button is temporarily restricted.

MULTIPLE ROCKER SWITCH

Principle

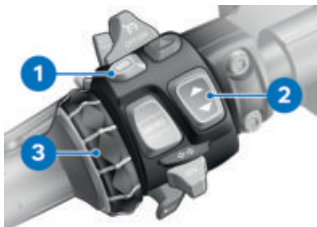
The multifunction rocker switch enables operation of individually assigned functions.

In the **MULTI-ROCKER SWITCH** menu, you can assign a function and select a second function as the fast recall function.

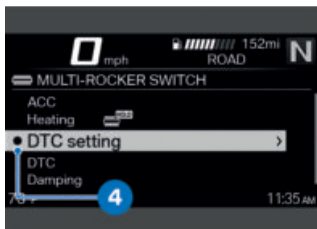
Settings made with the multifunction rocker switch are retained even after the ignition is turned off.

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Assigning a function




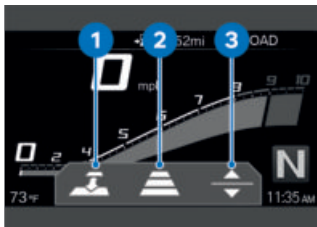
- Press button **1**.
» The MULTI-ROCKER SWITCH menu opens.
- Select the desired function using the Multi-Controller **3**.
- Press the Multi-Controller **3** briefly to the right.



The function **4** is assigned to the multifunction rocker switch.

- Set the value of the function using the multifunction rocker switch **2**.

 The first keystroke displays the current status of the function. The second keystroke changes the function value.

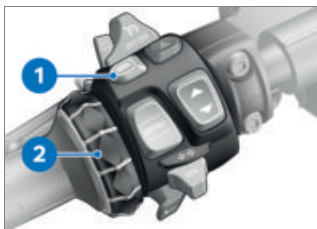


The operating feedback shows the icon of the respective function **1** and the status of the function **2**. The arrows **3** show the respective setting options.

Fast recall function

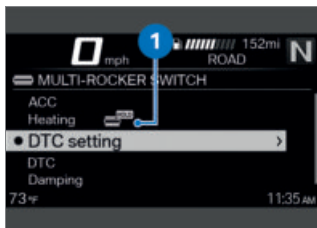
The fast recall function can be used for temporarily changing between the assigned function and another function.

Selecting the fast recall function



- Press button **1**.
» The MULTI-ROCKER SWITCH menu opens.
- Select the desired function using the Multi-Controller **2**.

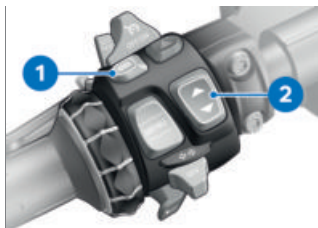
- Press and hold the Multi-Controller **2** to the right.



The icon **1** indicates that the function is selected as a fast recall function.


Operating the fast recall Requirement

The MULTI-ROCKER SWITCH menu distinguishes between the currently assigned function and the fast recall function.



- Press and hold button **1**.
» Operating feedback from the fast recall function is displayed.
- While the operating feedback is displayed, press the mul-

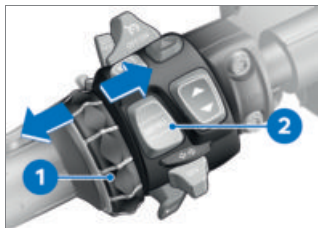
tifunction rocker switch **2** to change the function value of the fast recall function.

 After the operating feedback is hidden, the assignment of the multifunction rocker switch to the currently selected function is reset.

MENUS

Requirement

The Pure Ride view is displayed.



- Press and hold the top of the rocker button MENU **2** to display the Pure Ride view.
- Press down the bottom of the rocker button MENU **2**.
- Briefly press the Multi-Controller **1** to the right repeatedly until the desired menu item is highlighted.
- Press down the bottom of the rocker button MENU **2** to open the respective menu.

sary for operating the vehicle on public roads is made available from the instrument cluster (e.g. TRIP 1) and the travel on-board computer (e.g. TRIP 2). The information can be displayed in the 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.















Changing display of upper status line

- Select content of upper status line. (▶▶▶ 82)



- Switch to 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

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Adjusting the volume

- Connect the rider's helmet and the passenger helmet. (▶▶▶ 86)
- Increase volume: Turn the Multi-Controller up.
- Decrease volume: Turn the Multi-Controller down.
- Mute: Turn the Multi-Controller all the way down.

Configuring system settings

- Call up menu *Settings*, *System settings*.
 - » The following system settings can be configured here:
 - Date and time
 - Units
 - Language

Switch GPS synchronization on or off

- with preparation for navigation system^{OE}

Requirement

The ConnectedRide Navigator or a mobile end device is connected with the vehicle via navigation preparation.

- Go to menu *Settings*, *System settings*, *Date and time*.
- Turn *GPS synchronization on or off*.
 - » The time is taken from the Navigator or the mobile end device.

Adjusting brightness

- Go to menu *Settings*, *Display*, *Brightness*.
- Adjust brightness.
 - » The brightness of the display is dimmed to the set value if ambient brightness falls below a defined value.

Resetting all settings

- Go to the *Settings* menu.
- Select *Reset all and confirm*.

The settings of the following menus are reset to the factory setting:


- Vehicle settings
- System settings
- Connections
- Display
- Information

- » The pairing of the vehicle with the current BMW Motorrad ConnectedRide account is reset.

BLUETOOTH PAIRING

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 terminals, e.g. with operating system iOS, you must go to the BMW Motorrad Connected App before use.

During the pairing process, the instrument cluster searches for other Bluetooth-compatible devices within its reception range. The conditions that have to be satisfied before a device can be detected are as follows:

- The Bluetooth® function of the device must be activated
- The device must be "visible" to others
- Other Bluetooth-capable devices must be OFF (e.g. mobile phones and navigation systems).

Please consult the operating instructions for your communication system.

Carrying out 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

- Carry out pairing. (►► 85)
- 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. (►► 262)

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Connect the rider's helmet and the passenger helmet

- Carry out pairing. (►►► 85)
- 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 passenger 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. (►►► 262)

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.


OPERATING FOCUS

—with preparation for navigation system^{OE}

Changing operating focus

When the Navigator is connected, you can change between operation of the Navigator and of the instrument cluster.

Changing the operating focus

 If a ConnectedRide Navigator is switched on and connected to the vehicle, the interface focus automatically switches to the Navigator.

- Securely fasten the navigation device. (►►► 247)
- Press and hold the top of the rocker button **MENU.**
 - » Dialog menu with progress bar is displayed.

The following selection is possible:

- Navigator
- Pure ride view

In Pure Ride view:

- Navigator
- Reset BC value
- Press and hold the top of the rocker button **MENU** until the progress bar reaches its maximum or confirm **Navigator.**
 - » The operating focus changes to the Navigator.

- » Operating the navigation system (▣▣▣ 248)
- To switch the operating focus to the instrument cluster, briefly press the bottom of the rocker button MENU.

NAVIGATION

Prerequisite

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

The BMW Motorrad Connected app is installed on the connected mobile terminal.



On some mobile terminals, e.g. with operating system iOS, you must go to the BMW Motorrad Connected App before use.

Entering destination address

- Connect mobile terminal. (▣▣▣ 85)
- Go to the BMW Motorrad Connected app and start the guidance.
- Go to the *Navigation* menu.
- » Active destination guidance is displayed.
- » If the active destination guidance is not displayed, the troubleshooting chart in the Technical data chapter may provide assistance. (▣▣▣ 263)

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 in the instrument cluster.
- Call up menu *Navigation*, *Favorites*.
- Select destination and confirm.
- Select *Start route guidance*.

Entering special destinations

- 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:

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- 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.

Display route info

- Go to the Navigation, Settings menu, then select the Route info menu item.

You can select between the following options:

- Destination
- Waypoint
- Select desired option.
- » The remaining distance and time are displayed.

Editing guidance

- Call up menu Navigation, New destination.

You can select between the following destinations:

- Recent destinations
- Favorites
- POIs

- Select destination from one of the three destination categories.
- Select Edit route guidance in the destination entry.
- Select Add stop to add the selected destination as a waypoint.
- Select Start guidance to overwrite the current destination.

Ending route guidance

- Tilt the Navigation Multi-Controller to the left while in the menu.
- Alternatively, select Active route guidance Option End route guidance from the menu and confirm.

Switching spoken instructions on or off

- Connect the rider's helmet and the passenger helmet. (🔊▶ 86)
- The navigation can be read aloud. 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.

Turning 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.

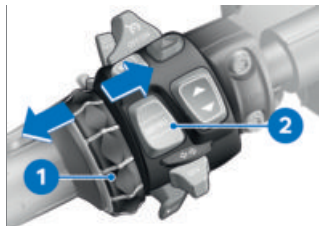
- *Speed Limit Info* displays the currently permitted maximum speed insofar as this information is provided by the editor of the maps in the navigation system.
- Call up menu *Settings*, *Display*.
- Turn *Speed Limit Info* on or off.

MEDIA


Prerequisite

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

Controlling audio playback



- Go to the *Media* menu.
- Next title: Briefly tilt the Multi-Controller **1** to the right.
- Last title or beginning of the current title: Briefly tilt the Multi-Controller **1** to the left.
- Fast forward: Tilt and hold the Multi-Controller **1** to the right.
- Fast rewind: Tilt and hold the Multi-Controller **1** to the left.
- Go to context menu: Press button **2** downward.

 Depending on the mobile terminal, 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 playing*, *All artists*, *All albums* or *All tracks*.

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–Select Playlists.

In the **Audio** settings sub-menu, the following settings are possible:

–Turn **Shuffle** on or off.

–Select **Repeat**: Off, One (current track) or All.

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.
- 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.

Muting

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 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 (➔ 84).

Phone book: List of contacts saved in the mobile terminal

Call list: List of calls with the mobile terminal

Favorites: List of favorites saved in the mobile terminal

SOFTWARE VERSION

- Go to menu **Settings**, **Information**, **Software version**.

LICENSE INFORMATION

- Go to menu **Settings**, **Information**, **Licenses**.

OPERATION

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94 OPERATION

IGNITION

Radio-operated key

The motorcycle is shipped with one radio-operated key and one wallet key. If you lose your keys, observe the notes regarding the electronic immobilizer (EWS) (▮▮▮▮ 96).

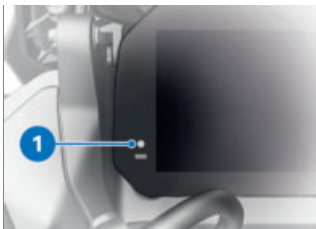
 If the range of the radio-operated key is exceeded, the vehicle cannot be started. If the radio-operated key continues to be missing, the ignition will be turned off after approx. 90 seconds to protect the battery.



Range of Keyless Ride
radio-operated key

approx. 3.3 ft (approx. 1 m)

The connection status is indicated by an indicator light in the instrument cluster after the ignition is turned on (▮▮▮▮ 95).



- Indicator light **1** is flashing: Radio-operated key is being searched for.
- Indicator light **1** is lit: Radio-operated key was not detected.
- Indicator light **1** is flashing slowly: Radio-operated key has not been enabled. Move the radio-operated key and turn on the ignition again (▮▮▮▮ 95).
- Indicator light **1** goes out: Radio-operated key detected and approved.

Locking the steering lock Requirement

Handlebars are turned to the left. Radio-operated key is enabled.



- 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 Requirement

Radio-operated key is enabled.

Steering lock is locked:

- Press and hold button **1**.
 - » Steering lock is unlocked.
 - » Lights and all function circuits switched on.
 - » Engine can be started.

Turning off the ignition Requirement

Radio-operated key is enabled.



- The steering lock can be locked by switching off the ignition.

Switch off the ignition and lock the steering lock:

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



- The steering lock can be unlocked by switching on the ignition.

Steering lock is unlocked:

- Briefly press button **1**.
 - » Lights and all function circuits are turned on.
 - » Engine can be started.


Switch off the ignition and do not lock the steering lock:

- Briefly press button **1**.
 - » Light is turned off.
 - » Steering lock is not locked.

96 OPERATION

Electronic immobilizer (EWS)

The motorcycle's electronics monitor the data stored in the ignition key by means of a ring antenna. The engine control unit does not enable engine start until this radio-operated key has been recognized as "authorized" for your motorcycle.



 An additional ignition key fastened to the same ring as the ignition key used to start the engine could "irritate" the electronics, in which case the enabling signal for an engine 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 authorized BMW Motorrad dealer. For this purpose, you must bring all of the motorcycle's remaining ignition keys with you. The engine can no longer be started by a disabled vehicle key; however, a disabled vehicle key can be enabled again. Ignition keys are only available from authorized BMW Motorrad dealers. The

vehicle keys are part of an integrated safety system, so the dealer is under obligation to check the legitimacy of all applications for spare keys.

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



- If you lose your keys, refer to the notes regarding the electronic immobilizer (EWS) ( 96).
- Should you lose the radio-operated key while riding, the vehicle can be started by using the spare key.
- If the radio-operated key battery is dead, you can start the vehicle simply by inserting the folded-in key into the ring antenna under the vehicle's seat.
- Remove the rider's seat.. ( 138)
- Insert the wallet key or the dead, folded radio-operated key **2** into the ring antenna **1**.

 The emergency key or dead folded-out radio-operated key must be **inserted** into the opening of the ring antenna.



Period in which the engine must be started.

Then unlocking must be repeated.

30 s

- » Pre-Ride-Check is carried out.
- Key has been detected.
- Engine can be started.
- Install the rider's seat. (▶▶▶ 139)
- Start engine. (▶▶▶ 153)

Checking the battery voltage of the radio-operated key



The battery voltage of the radio-operated key is indicated by the color of the LED **2**.

- Press button **1**.
- » LED is lit green: Battery voltage is normal
- » LED is lit orange: Low battery voltage

» LED is lit red: Battery voltage is critical

If the LED is lit red, the battery of the radio-operated key must be replaced.

- Replace the battery of the radio-operated key. (▶▶▶ 97)

Replacing the battery of the radio-operated key

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. Function limited. Change battery.

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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 reg-

ulations. 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

Function



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

Emergency-off switch with Automated Gearshift Assistant (ASA)

—with Automated shift assistant^{OE}

To enable safe stopping, the automated shift assistant performs the following functions after the emergency-off switch is pressed:

- Disconnect the clutch.
- Shift to the neutral position.
- Turn off engine.

The emergency-off switch can also be used to activate the immobilizer (▮▮▮ 159).

INTELLIGENT EMERGENCY CALL

—with intelligent emergency call^{OE}

Emergency call via BMW

Only press the SOS button in an emergency.


Emergency call cannot be ensured if the conditions are unfavorable for technical reasons, e.g. in regions where there is no cellphone reception.

During an emergency call, the position of the vehicle, the selected language and any accident data are transmitted to BMW (▶▶ 13). Under unfavorable conditions, data transfer can be limited or delayed. This can lead to delayed processing of the emergency call.

Even if an emergency call via BMW is not possible, a call to a public emergency call number may be established. This depends on the respective mobile phone network and the national regulations.

Language for emergency call

Each vehicle is assigned a language depending on the market for which it was intended. The BMW Call Center responds in this language.

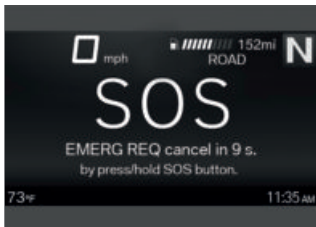
 Only your authorized BMW Motorrad dealer is able to change the language for the emergency call. This language assigned to the vehicle is different from the language that the rider can choose as the display language in the instrument cluster.

Manual emergency call Requirement

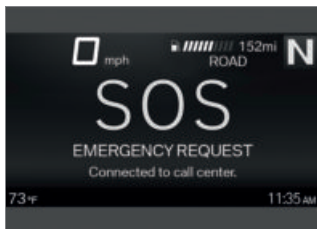
An emergency has arisen. The vehicle is stationary. The ignition is turned on.



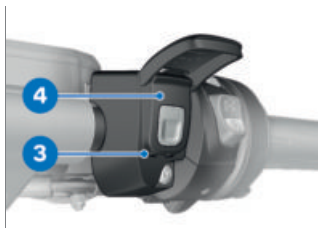
- Open cover 1.
- Briefly press SOS button 2.



- » The time until an emergency call is placed is displayed.
The emergency call can be aborted during this time.
- Cancel emergency call: Press and hold the SOS button **2** for two seconds or turn off the ignition.
- Press the emergency-off switch to stop the engine.
- Remove your helmet.
- » Once the timer has expired, a voice connection will be established with the BMW Call Center.



The connection has been established.



- Communicate information for the rescue services using the microphone **3** and speakers **4**.

Automatic emergency call

The intelligent emergency call is automatically active once the ignition is switched on and will react if you are involved in a fall.

Emergency call in the event of a minor fall

- A light fall or crash has been detected.
- » An acoustic signal is emitted.

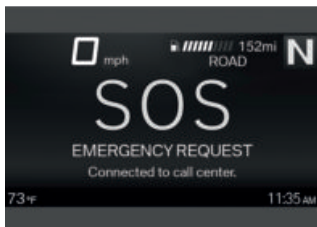


- » The time until an emergency call is placed is displayed.

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The emergency call can be aborted during this time.

- Cancel emergency call: Press and hold the SOS button for two seconds or turn off the ignition.
- If possible, remove helmet and stop the engine.
- » Voice contact to the BMW Call Center is established.



The connection has been established.



- Open cover **1**.
- Communicate information for the rescue services using the microphone **3** and speakers **4**.

Emergency call in the event of a heavy fall

- A heavy fall or crash has been detected.
- » The emergency call is sent automatically without delay.

LIGHTING

Low beams and parking lights

The parking lights turn on automatically when the ignition is turned on.

- The parking lights are a strain on the battery. Only turn on the ignition briefly.

The low-beam headlight switches on automatically when the engine is started.

High beams and headlight flasher

- Turn on the ignition. (➔ 95)



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

Headlight courtesy delay feature

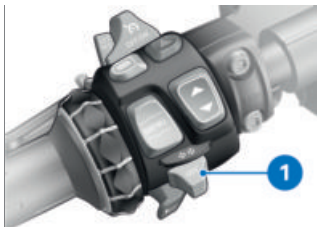
- Turn off the ignition. (☛ 95)



- 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.

Roadside parking lights


- Turn off the ignition. (☛ 95)



- 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.

Hazard warning system

- Turn on the ignition. (☛ 95)

 The hazard warning system places a load on the battery. Only switch the hazard warning lights system on briefly.



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

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» Ignition can be turned off.

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

Turn signals

- Turn on the ignition. (▶▶▶ 95)
- Go to the Settings, Vehicle settings menu, then select the Lights menu item.
- Turn Comfort turn indicator on or off.



- Press button **1** to the left or right to turn on the turn signals.
- » If the comfort turn signal is turned on, the turn signal automatically switches off once the speed-dependent distance has been covered.
- Alternative: Press button **1** to turn off the turn signals.

DYNAMIC TRACTION CONTROL (DTC)

Operate DTC

- Turn on the ignition. (▶▶▶ 95)
- Assign the DTC ON/OFF function to the (▶▶▶ 79) multiple rocker switch.
- Set the desired system status.




The first time the multifunction rocker switch is pressed, the current system status **1** is displayed.

- Press and hold the bottom of the multifunction rocker switch to turn off the DTC.
- » The indicator on the display flashes in sync with the indicator light on the instrument cluster.



blinks yellow.

- Press the top of the multifunction rocker switch to turn on the DTC. Alternative: Turn the ignition off and on again.

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

- More detailed information on the Dynamic Traction Control (DTC) can be found in the Technology in detail chapter (▶▶▶ 175).

DTC setting

The permissible slip on the rear wheel is controlled by the DTC according to the selected riding mode.


- with riding modes Pro^{OE}
- With Performance^{OE}

Control can be fine-tuned in the configuration settings of DYNAMIC PRO riding mode. Configure DYNAMIC PRO riding modes (▶▶▶ 110).

You can use the multi-function rocker switch to modify DTC settings while riding.

Adjusting the DTC

- with riding modes Pro^{OE}
- With Performance^{OE}
- Turn on the ignition. (▶▶▶ 95)
- Assign the DTC setting function to the (▶▶▶ 79) multiple rocker switch.
- with riding modes Pro^{OE}
- Configure the DYNAMIC PRO riding mode. (▶▶▶ 110)

 DTC can also be adjusting while riding.



If DYNAMIC PRO riding mode is activated, Speed Limit Info **1** is hidden and the current DTC setting **2** is shown instead.

- Short-press the top or bottom section of the multi-function rocker switch to display the DTC setting.
- Short-press the top of the multi-function rocker switch again to increase the DTC control setting.



WARNING

Loss of stability with spinning rear wheel caused by reduction of DTC control.

Accident hazard

- Reduce DTC control on race tracks only.
 - Change the DTC control by only one stage at a time and carefully test the impact on the handling.
- Short-press the bottom of the multi-function rocker switch again to reduce the DTC control setting.
 - » The set value is shown on the display and lies between -7 and 7:
 - » 1 ... 7: Reduction of the slip on the rear wheel by a maximum of seven levels. The value 7 corresponds to the earliest DTC intervention.
 - » -1 ... -7: Increase of the slip on the rear wheel by a maximum of seven levels. The value -7 corresponds to the latest DTC intervention.
 - » 0: Factory setting.
 - » DTC display hidden: DTC turned off.

Turning off the DTC

On very loose surfaces (e.g. a gravel bed at a racetrack), the control interventions of the DTC can reduce the driving power at the rear wheel so much that forward motion is no longer possible. In this case, BMW Motorrad recommends turning off the DTC temporarily.

Note that the rear wheel will spin in the loose substrate, and close the throttle in a timely manner before reaching a solid substrate.

Turning off DTC also deactivates engine drag torque control and wheelie suppression. Then turn the DTC back on (▢▶ 104).

CHASSIS AND SUSPENSION ADJUSTMENT

Possible settings

The electronic Dynamic ESA chassis and suspension adjustment can adapt your motorcycle to the load.

—with dynamic suspension adjustment^{OE}

Chassis setting DSA automatically adapts your motorcycle to suit the vehicle load.

For more information on chassis settings, see the section entitled Technology in detail (▮▮▮ 183).

Adjusting the load

—without dynamic suspension adjustment^{OE}

- Start engine. (▮▮▮ 153)
- Assign the **Load** function to the (▮▮▮ 79) multiple rocker switch.
- Select the appropriate setting.
- Alternative: If the **Load** function has been selected in the **MULTI-ROCKER SWITCH** menu before, change the setting immediately using the multiple rocker switch.



Adjust load setting **1** according to payload and number of persons.

The following settings are available:



One-up



One-up with luggage



Two-up mode (with luggage)

Adjusting damping

—with^{OE} dynamic suspension adjustment



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

- Turn on the ignition. (▮▮▮ 95)
- Assign the **Damping** function to the (▮▮▮ 79) multiple rocker switch.
- Select the appropriate setting.



Depending on the riding mode, the damping can be set to various settings **1**.

In the **ECO**, **RAIN**, **ROAD**, **DYNAMIC** and **DYNAMIC PRO**

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riding modes, you can select from the following settings:

- Road
- Dynamic

The damping characteristics of the settings can be adapted in seven stages for fine-tuning to suit individual preferences.

- To adjust the settings, go to the **Settings, Assist, Damping** menu.
- Select setting **Road** or **Dynamic** and go to the **Damping configuration** menu.
- Select setting **-1, -2, or -3** to reduce damping.
- Select setting **+1, +2, or +3** to increase damping.

Effects of damping on vehicle handling

The aim of adjusting this setting is to adapt the damping to suit the spring preload, road conditions, desired vehicle handling and load state.

Increased damping

- Direct vehicle handling.
- Increased response to road conditions.
- Reduced vibration tendency.
- Loss of comfort when driving over series of bumps.

Reduced damping

- Comfortable vehicle handling.
- Reduced response to road conditions.
- Increased vibration tendency.

RIDING MODE

Use of the riding modes

BMW Motorrad provides you with pre-configured modes corresponding to the intended use:

Series

- ECO: Range-optimized riding.
- RAIN: Riding on wet roads.
- ROAD: Riding on dry roads.

–with riding modes Pro^{OE}

With Pro riding modes

- DYNAMIC: Brisk riding on dry roads.
- DYNAMIC PRO: Dynamic riding on dry roads taking into account settings made by the rider.

The optimum interaction between engine characteristics and DTC, ABS and MSR is provided for each of these scenarios.

The chassis and suspension adjustments can also be adapted in the selected scenario.

More detailed information about the riding modes can be

found in the "Technology in detail" chapter (➡ 184).

Riding mode preselection

—with riding modes Pro^{OE}

With the aid of the riding mode preselection, individually preferred riding modes can be compiled in a preselection.

Two to a maximum of four riding modes can be added to the riding mode preselection.

Factory setting:

ECO, RAIN, ROAD and DYNAMIC

Preselecting the riding mode

—with riding modes Pro^{OE}

- Turn on the ignition. (➡ 95)
- Go to menu Settings, Vehicle settings, Riding mode preselection.
- Activate or deactivate riding modes for the riding mode preselection.
 - » The activated riding modes are available for selection.
 - » The compilation of the riding modes in the riding mode preselection is retained, even after the ignition is switched off.

Select riding mode

- Turn on the ignition. (➡ 95)
- with riding modes Pro^{OE}
- Preselect the riding mode. (➡ 109)◀



- Press button 1.




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

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

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—with riding modes Pro^{OE}

 Depending on the riding mode or its configuration, the intervention of electronic stability control systems can be restricted.

Possible restrictions are displayed as a pop-up message, e.g. Caution! ABS setting..

The ABS indicator light flashes irregularly.

You can find more detailed information regarding road handling control systems such as ABS in the chapter "Technology in detail".◀

- » The availability of riding modes is affected by how the rider configures the riding modes preselection function.
- » When the vehicle is stationary, the selected riding mode is activated after approx. two 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.
 - Adaptive cruise control is not active.
- » The riding mode selected and its associated adjustments of

engine characteristics DTC, ABS and MSR are retained even after the ignition has been turned off.

PRO RIDING MODE

—with riding modes Pro^{OE}

Adjustment options

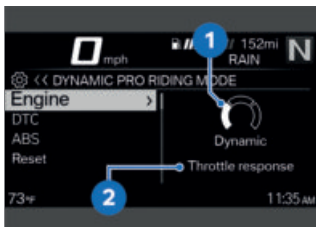
The Pro riding modes can be adjusted individually.

Select Pro riding mode

- Turn on the ignition. (▶▶▶ 95)
- Go to menu Settings, Vehicle settings, Riding mode preselection.
- Select DYNAMIC PRO riding mode.

Configuring the riding mode DYNAMIC PRO

- Turn on the ignition. (▶▶▶ 95)
- Go to menu Settings, Vehicle settings, Riding mode preselection.
- Select and activate DYNAMIC PRO riding mode.
- Select Configuration and confirm.



The Engine system is selected. The current setting is displayed as a diagram **1** with explanations on the system **2**.

- Select and confirm the system.



You can scroll through the possible settings **3** and the related descriptions **4**.

- Adjust the system.
 - » The Engine, DTC, and ABS systems can all be adjusted in the same way.
- The settings can be reset to factory settings:
- Reset the riding mode settings. (▶▶▶ 111)

Riding mode settings reset

- Select Pro riding mode. (▶▶▶ 110)
- Select Reset and confirm.
 - » The following factory settings apply to DYNAMIC PRO RIDING MODE:
 - ENGINE: Dynamic
 - DTC: Road
 - ABS: Dynamic

AUTOMATED SHIFT ASSISTANT (ASA)

- with Automated shift assistant^{OE}

Function

The automatic Gearshift Assistant (ASA) enables automated gear shifts without input from the rider.

Two transmission modes are available for gear selection:

- Manual mode M: Gear shift by actuation of the gearshift lever.
- Automatic mode D: Automated gear selection with consideration of the current riding situation.

In automated riding mode, gear shifts are triggered by the following conditions:

112 OPERATION

- Riding mode
- RPM
- Throttle grip actuation
- Brake actuation
- Inclined position

Regardless of the selected transmission mode, driving off and stopping are also controlled by the automated shift assistant (ASA).

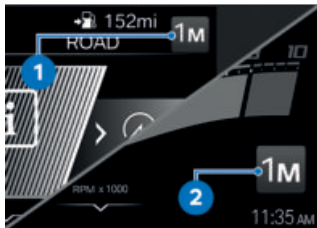
For more information on the automated shift assistant (ASA), see the Riding chapter (➔ 157).

Selecting the transmission mode

-with Automated shift assistant^{OE}

- Establish ride readiness. (➔ 157)

» The manual mode **M** is active.



The gear selected by the rider with indicator **M** for the manual mode is displayed in the status line **1** or in the Pure Ride **2** view.




- Briefly press button **1**.
» The automatic mode **D** is activated.



The indicator for the automatic mode **D** and the current gear are displayed in the status line **1** or in the Pure Ride **2** view.

- Press button **1** again briefly to switch back into manual mode.

 The transmission mode can also be changed while riding.

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)



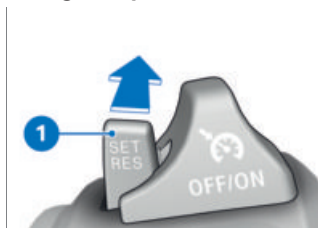
The icon **1** for cruise control is displayed in the Pure Ride view and in the upper status line.

Turning on cruise control




- Slide switch **2** to the right.
- » Button **1** can be operated.

Saving the speed



- Briefly press button **1** forward.

 Adjustment range of cruise control (gear-dependent)

19...130 mph (30...210 km/h)



is displayed.

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

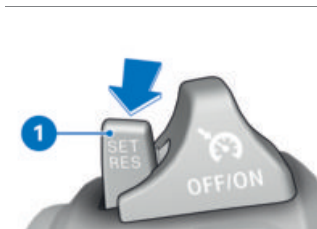
114 OPERATION

Accelerating



- Briefly press 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





- 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

- Apply the brake or turn the throttle back past the basic setting to deactivate cruise control.
 - without Automated shift assistant^{OE}

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

 During ABS or DTC interventions, the cruise control is automatically deactivated for safety reasons. If the rider deactivates DTC, the cruise control is also deactivated.

 is displayed in gray.

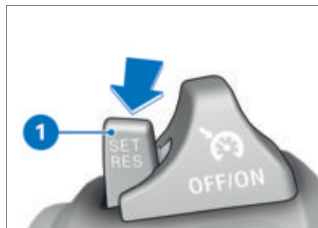
Automatic deactivation

Cruise control is deactivated automatically in the following situations:


- When dropping below the minimum speed (stalling protection).
- After several seconds when driving at the maximum engine speed.
- In case of ABS or DTC intervention.
- If a system error occurs.

If cruise control was automatically deactivated, a message appears in the display.


Resuming previous cruising speed



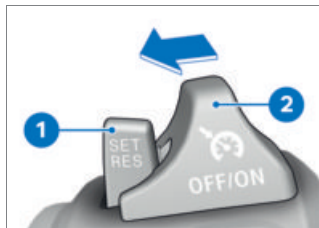
- Briefly push button **1** back to return to the speed saved beforehand.

 Cruise control is not deactivated by accelerating, it only overrules it for a short time. Once the throttle grip is released, the speed falls to the


stored value. If further deceleration is desired, the cruise control must be deactivated, e.g. by braking.

 Cruise control indicator light lights up.

Turning off cruise control



- Push switch **2** to the left.
- » The system is turned off.

 is hidden.

- » Button **1** is locked.

Configuring the character of the cruise control

- Turn on the ignition. (▶▶ 95)
- Go to the Settings, Assist menu, then select the Cruise control menu item.
- Select the ACC characteristics menu item.
- Select desired setting.
- » The following settings for the acceleration and deceleration behavior are possible:

116 OPERATION

- Comfortable:** Smooth acceleration and deceleration of the vehicle.
- Dynamic:** More pronounced acceleration and deceleration for more dynamic riding style.

RADAR-BASED RIDER ASSISTANCE SYSTEMS

-with Riding Assistant^{OE}

Safety instructions

Distance control (ACC), Forward Collision Mitigation (FCW) and lane change warning (SWW) are radar-based rider assistance systems. Functional limitations and limits of the systems must be observed.



WARNING

Riders not released from their own responsibility

Risk of accident due to misjudgment by the systems

- The rider assistance systems are not safety systems. The rider is ultimately responsible for correctly gaging visibility conditions and the traffic situation, and for intervening accordingly.



WARNING

Radar cannot detect all objects and traffic situations

Risk of accident

- Radar-based rider assistance systems only detect moving vehicles. This means that pedestrians, animals and stationary vehicles, for example, are not detected. Cyclists cannot be reliably detected.
- Object detection can be limited, for example, if the road is curvy or uneven or if you are riding unstably or at an angle within a lane.
- The front radar (ACC, FCW) does not react to oncoming vehicles and can only detect vehicles swerving into your lane ahead with a delay.
- Depending on the system, these limitations can result in a late warning and hard braking or in the lack of a warning and braking.
- Observe the traffic and actively intervene in the respective situations.

**WARNING****Radar is not functional in certain situations**

Risk of accident if there is no braking or warning

- The radar sensors require a clear visible area for object detection to work well. During heavy rain, fog or snow and when the radar sensors are dirty or covered, object detection is limited.
- Object detection can be impeded by environmental conditions, e.g. by strong reflections and electromagnetic interference.
- After any accident or after the motorcycle hits the vehicle ahead or tips over, the installation position of the radar sensors must be checked.
- Observe the traffic and actively intervene in the respective situations.

**ATTENTION****Radar can misdetect certain objects and traffic situations**

Risk of accident

- Radar-based rider assistance systems can react to certain objects and complex traffic situations without good reason. For example, narrowed lanes (e.g. road construction) or objects in the air (e.g. bouncing ball or plastic bag) can lead to ACC or FCW issuing a warning or decelerating the vehicle.
- Observe the traffic and actively intervene in the respective situations.

DISTANCE CONTROL (ACC)

—with Riding Assistant^{OE}

Safety instructions

The safety instructions for radar-based rider assistance systems must also be observed (▣► 116).



WARNING

ACC cannot compensate for excessive speed differences

Risk of accident

- ACC cannot perform emergency braking. The deceleration and buildup of deceleration are limited.
- The system cannot compensate for high speed differences, for example when approaching a truck rapidly or when another vehicle swerves into your lane ahead of you.
- When the adjustment range of ACC is exceeded, object detection might be delayed on account of the high speed. Therefore, heightened caution is mandatory.
- Observe the traffic and actively intervene in the respective situations.



WARNING

ACC can lose track of detected objects

Risk of accident

- When ACC deselects a detected object erroneously, the motorcycle will accelerate to the set speed. This can be the case when riding around curves, for instance.
- Observe the traffic and actively intervene in the respective situations.



WARNING

ACC (front-collision warning) cannot decelerate the vehicle sufficiently when cornering at high speed

Risk of accident

- If distance control is active and the lean angle is too great, cornering control reduces the driving speed. When a vehicle has been detected, the motorcycle decelerates more slowly when at a leaning angle.
- Select an appropriately low speed.



When riding in other countries, the country-specific provisions for oper-

ating radar sensors must be observed. The radar sensor must be disconnected if the radar sensor is not licensed within a certain country and the country-specific regulations require it to be disconnected. It is advisable to consult an authorized BMW Motorrad dealer.

Switchover between cruise control and ACC

- Turn on the ignition. (▮▮▮ 95)
- Configure the character of the cruise control. (▮▮▮ 115)



WARNING

Reduced support after switchover to cruise control

Risk of accident

- Unlike ACC, cruise control does not respond to the traffic ahead but adjusts the speed to the stored value.
- Observe the traffic and actively intervene in the respective situations.

- Go to Settings, Assist menu, select Cruise control.
- Activate or deactivate the Activate ACC.
- **Alternatively:** Assign the ACC function to the (▮▮▮ 79) multiple rocker switch.

ACC is inactive:


- Briefly press the bottom of the multifunction rocker switch to display the current status.
- Briefly press the bottom of the multifunction rocker switch again to activate ACC.
- » A switchover between cruise control and ACC takes place.

ACC is active:


- Press and hold the top of the multifunction rocker switch to display the current status.
- Press and hold the top of the multifunction rocker switch again to deactivate ACC.
- » This switches between ACC and cruise control.
- Note automatic deactivation (▮▮▮ 115).
- For more information on the distance control (ACC), see the Technology in detail (▮▮▮ 178) chapter.

Operating ACC Requirement

Activate ACC is activated.

- Turn on cruise control. (▮▮▮ 113)
-  is displayed in gray.
- Save the speed. (▮▮▮ 113)

120 OPERATION

 If the speed is above the setting range of 19...99 mph (30...160 km/h), the speed will be adjusted to the maximum speed of 99 mph (160 km/h).

- Briefly press the multifunction rocker switch.



The currently set distance **1** is displayed.

Indicators in the instrument cluster

The following icons may be displayed in the instrument cluster when ACC is operating:

Indicator lights

» No object is detected:



is displayed in green.

» An object is detected:



is displayed in green.

» Rider exceeds the set speed by turning the throttle grip:



is displayed in green.

Warning lights

» The system caused the ACC control to be switched off:



is displayed in red.

» A hazardous situation has been detected and cannot be avoided.



blinks red.

If a warning light appears in the instrument cluster:

- Take action to avoid potential danger.

Setting distance

- Assign the ACC function to the (79) multiple rocker switch.
- Briefly press the multifunction rocker switch.



The currently set distance **1** is displayed.



WARNING

Selected distance is too short for the traffic situation

Risk of accident

- Adjust the distance according to the traffic and weather conditions.
- Maintain the legally prescribed safety distance.

- Select the appropriate setting.

» The following settings are available:



Short distance



Medium distance



Long distance

» If ACC detects an object moving ahead, a car is shown as well as the displayed icon.

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

FORWARD COLLISION MITIGATION (FCW)

—with Riding Assistant^{OE}

Safety instructions

The safety instructions for radar-based rider assistance systems must also be observed (▶▶ 116).



WARNING

FCW can lose track of detected objects

Risk of accident

- If FCW loses track of a detected object, a warning might not be issued or the braking might be canceled. This can be the case when riding around curves, for instance.
- Observe the traffic and actively intervene in the respective situations.



WARNING

FCW (front-collision warning) cannot decelerate the vehicle sufficiently when cornering at high speed

Risk of accident

- If the angle is too high, the FCW issues a warning with a weaker warning pulse and more slowly builds the brake assist up to a lower maximum value.
- Select an appropriately low speed.

Forward Collision Mitigation behavior



FCW is available only in the ECO, RAIN, ROAD and DYNAMIC riding modes.

More information about the FCW can be found in the chapter "Technology in detail" (▮▮▮▮▶ 180).

Warning lights

If the FCW detects a critical driving situation, the following icons can be displayed in the instrument cluster:

Prewarning

» Warning pulse is activated:



lights up red.

» Warning pulse is deactivated:



blinks red.

Acute warning

» Brake assist is activated:



blinks red.

» Brake assist is deactivated:



flashes red over the entire screen.

If a warning light appears in the instrument cluster:

- Take action to avoid potential danger.

Adjusting the time of the warning

- Go to **Settings, Assist** menu, select **Front-collision warning**.
- Select **Warning**.

The following times can be selected:


- Early
- Medium
- Late

Adjusting the warning pulse

- Go to **Settings, Assist** menu, select **Front-collision warning**.

- Select **Warning pulse**.
- » The following settings are available:
 - Activated: When the prewarning is output, an attention-getting brake pulse is triggered in addition to the warning display.
 - Deactivated: When the prewarning is output, only a warning display appears.


Adjusting the brake assist


 The brake assist is designed to mitigate critical driving situations and bridge the response time of the rider. However, manual intervention by the rider is still necessary.

- Go to **Settings, Assist menu**, select **Front-collision warning**.
- Select **Braking assistance**.
- » The following settings are available:
 - Activated: When the acute warning is output, a supporting braking maneuver is initiated in addition to the warning display.
 - Deactivated: When the acute warning is output, only a warning display appears.


Deactivating the FCW

- Go to **Settings, Assist menu**, select **Front-collision warning**.
- Go to the **Warning menu** item and deactivate it with **Off**.

 Haptic interventions of the function can be individually activated or deactivated in the **Front-collision warning menu** without a need to deactivate the function completely.

 FCW can be manually deactivated using the menu or by selecting riding mode **Pro**.

» FCW is deactivated:

 is displayed.

- More information about the FCW can be found in the chapter "Technology in detail" (➔ 180).

LANE CHANGE WARNING (SWW)

–with Riding Assistant^{OE}

124 OPERATION

Lane change warning behavior

The safety instructions for radar-based rider assistance systems must also be observed (▮▮▮▮ 116).

If the lane change warning is active and there is a critical driving situation for a lane change, the warnings behave as follows:




Information warning

—The warning triangle **1** lights up until the critical driving situation has passed.

Acute warning

—If the rider operates the turn signal in the direction of the lit warning triangle, intending to make a lane change, the warning triangle **1** flashes because a safe lane change is not possible.


 If the *Urg. only* setting is selected, only the acute warning with flashing warning triangle is issued.

For more information on the lane change warning, see the "Technology in detail" chapter (▮▮▮▮ 182).

The brightness of the warning triangle depends on the ambient brightness or the brightness of the instrument cluster (▮▮▮▮ 84).

Setting the lane change warning

- Go to *Settings, Assist* menu, select *LCW*.

 In the factory setting, the lane change warning is active. A change to the setting is retained after the ignition is turned off.

» The following settings are available:

- Off: SWW is deactivated; neither information warnings nor acute warnings are output.
- On: SWW is activated; both information warnings and acute warnings are output.
- Urg. only*: SWW is activated; only acute warnings are output.

HILL START CONTROL (HSC)

Display



The icon **1** is displayed in the Pure Ride view or in the upper status line.

Turn Hill Start Control on and off

- Turn on the ignition. (▶▶▶ 95)
- Call up menu Settings, Vehicle settings.
- Turn Hill Start Control on or off.

Operating Hill Start Control Requirement

Vehicle is at a standstill with the engine running.




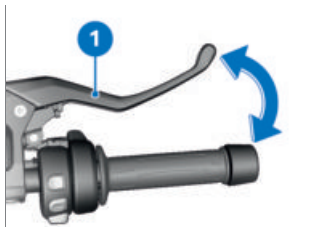
ATTENTION

Failure of the Hill Start Control

Risk of accident

- Secure the vehicle through manual braking.

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



- Apply brake lever **1** or foot-brake lever firmly and then release again.



is displayed in green.

» Hill Start Control has been activated.

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




is hidden.

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



For driving off with Hill Start Control, the throttle grip must be actuated as the motorcycle starts driving off.

126 OPERATION

 disappears after the brake has been released completely.

» Hill Start Control is deactivated.

- More information about the Hill Start Control can be found in the chapter "Technology in detail" (▶▶▶ 191).

Operating Hill Start Control Pro

—with riding modes Pro^{OE}

Requirement

Vehicle is at a standstill with the engine running.





ATTENTION

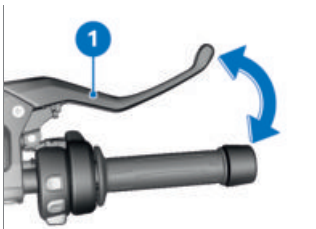
Failure of the Hill Start Control

Risk of accident

- Secure the vehicle through manual braking.

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

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



- Apply brake lever **1** or foot-brake 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 has been 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 hidden.

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

 For driving off with Hill Start Control Pro, the throttle grip must be actuated as the motorcycle starts driving off.

 disappears after the brake has been released completely.

- » Hill Start Control Pro is deactivated.
- More information about the Hill Start Control Pro can be found in the chapter "Technology in detail" (▮▮▮ 191).

Adjusting Hill Start Control Pro

—with riding modes Pro^{OE}

- Turn on the ignition. (▮▮▮ 95)
- Call up menu *Settings, Vehicle settings*.
- Select *HSC Pro*.
- To turn off Hill Start Control Pro, select *Off*.
 - » Hill Start Control Pro is deactivated.
- 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 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.

SHIFTPOINT LIGHT

Function



The shiftpoint light **1** signals to the rider the rotational speed at which the rider needs to shift to the next highest gear.

—Shiftpoint light blinks at the set frequency: Shifting speed has been reached


Turning the shiftpoint light on and off

- Call up menu *Settings, Vehicle settings*.
- Turn *Shift light* on or off.

128 OPERATION

Setting shifting flash

—with Automated shift assistant^{OE}

 In automatic mode D, the shiftpoint light is inactive.



- Turn on the Shift light function.
- Go to menu Settings, Vehicle settings, Configuration (under Shift light).
 - » The following settings are available:
 - Start RPM
 - End RPM
 - Brightness
 - Frequency. A flashing frequency of 0 Hz corresponds to continuous lighting.
 - » Changes to the brightness and the flashing frequency are signaled by the shiftpoint light lighting up or flashing.

LAPTIMER

—With Performance^{OE}

Starting time recording

- Go to Sport menu and change to the Sport 2 or Sport 3 display.
- Start engine.



- Press button **1**.
 - » The time recording is running.
- Each time when riding over the Start/Finish line, press button **1** again to start the recording for the next racing lap.
 - » The data of the preceding race lap will be saved.
 - » The time for the current lap restarts at 00:00:00.
 - » The stopped time of a racing lap is displayed for a configurable *Disp. duration* before the system switches to the current time for the current racing lap.
 - » If the display mode is exited during a recording, then the recording continues to run.

Ending time recording and managing times Requirement

The Sport 2 or Sport 3 display is shown.

- Press MENU rocker button down.

- » The LAPTIMER menu is displayed.
- Stop recording can be used to end a recording that is currently in progress.
- Laps can be used to go to the current lap times and riding data. 99 laps can be saved. If you do not delete any laps after reaching the maximum, any further laps will overwrite the first laps.
- Delete all laps can be used to delete all laps.
- Reset Best Ever can be used to reset the best ever racing lap (Best Ever).

Setting the Laptimer

- Go to menu Settings, Vehicle settings, Laptimer. The following settings are available:
 - » Bounce time: If the headlight flasher was operated, the headlight flasher can be operated again within this time without affecting the lap time measurement.
 - » Disp. duration: Within this time, the stopped time of a lap is displayed before the current lap time is shown.
 - » Reference: Selection of which best time is shown as the reference. Best: Best time of the current record-

ing or Best Ever: Best ever time measured.

- » Best lap in progress: When this function is activated, the display does not show the difference between the last lap time and the reference time, but rather the difference between the current lap time and the reference time.

Best ever racing lap

The best ever racing lap (Best Ever) is the fastest of all recorded racing laps and is updated as soon as a faster lap has been recorded.

The best ever racing lap remains stored even if the recorded racing laps are deleted. As a result, a new race can be recorded at other times and compared with the best lap from previous races.

The best ever racing lap can be deleted in the LAPTIMER menu.

If the best ever racing lap is from a stored recording, the corresponding lap number is also displayed. If the best ever racing lap does not have a lap number, it is from a recording that has already been deleted.

130 OPERATION

ANTI-THEFT ALARM SYSTEM (DWA)

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

Automatic activation

- Turn on the ignition. (▣▣▣ 95)
 - Adjust the anti-theft alarm system. (▣▣▣ 132)
 - Turn off the ignition. (▣▣▣ 95)
- » If Arm automatically the DWA is activated, the DWA is automatically activated after the ignition is switched off.
- » Activation takes approximately 30 seconds.
- » Turn signals flash twice.
- » Confirmation tone sounds twice (if activated).
- » DWA is armed.

Activation with radio-operated key

- Turn off the ignition. (▣▣▣ 95)



- Press the button **1** of the radio-operated key once.
- » Activation takes approximately 30 seconds.

- » Turn signals flash twice.
- » Confirmation tone sounds twice (if activated).
- » Anti-theft alarm system is active.

—with central locking system^{OE}



- Press the button **1** on the radio-operated key twice.
- » Activation takes approximately 30 seconds.
- » Turn signals flash twice.
- » Confirmation tone sounds twice (if activated).
- » Anti-theft alarm system is active.<

Activating transport mode

- If the motorcycle is transported by train or trailer, strong movements can trigger an alarm. To deactivate the tilt sensor, press the **1** button on the remote control key again during the activation phase.
- Alternatively, the tilt sensor can be deactivated using the menu *Settings, Vehicle*

settings, Alarm system (▣▣▣ 132).

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

Alarm signal

The DWA alarm signal can be triggered by:

- Tilt alarm sensor
- Switch-on attempt with an unauthorized ignition key.
- Disconnection of the DWA from the vehicle battery (DWA battery takes over the power supply – alarm tone only, turn signals do not flash)

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 alarm lasts approx. 30 seconds. During the alarm, an alarm tone sounds and the turn signals blink. You can adjust the type of alarm tone in the menu *Settings, Vehicle settings, Alarm system* (▣▣▣ 132).



A triggered alarm can be canceled at any time by pressing the **1** button 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 DWA anti-theft alarm LED on the instrument cluster then signals the reason for the alarm for one minute.

Light signals on indicator light:

- 1x flash: Tilt sensor 1
- 2x flashes: Tilt sensor 2
- 3x flashes: Ignition is turned on using an unauthorized ignition key
- 4x flashes: DWA disconnected from vehicle battery
- 5x flashes: Tilt sensor 3

132 OPERATION

Deactivation

 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 on the ignition. (▣▣▣ 95)



- Alternatively, press the button **1** on the radio-operated key once.
 - » Turn signals flash once.
 - » Confirmation tone sounds once (if activated).
 - » DWA is turned off.

Adjusting the anti-theft alarm system


- Turn on the ignition. (▣▣▣ 95)
- Go to menu Settings, Vehicle settings, Alarm system.
 - » The following settings 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 (▣▣▣ 132)

Possible settings

Warning signal: Set increasing and decreasing or intermittent alarm tone.

Tilt sensor: Deactivate the tilt sensor to activate transport mode. The inclination of the vehicle is not monitored in transport mode.

 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 signals.

Arm automatically: Automatic activation of the alarm function when the ignition is switched off.

TIRE PRESSURE MONITOR (TPM)

- with tire pressure monitor (TPM)^{OE}
- with riding modes Pro^{OE}

Switching setpoint pressure warning on or off

- If the minimum tire pressure is reached, a target pressure warning can be displayed.
- Go to menu Settings, Vehicle settings, RDC.
- Turn Target pressure warn. on or off.

WINDSHIELD

Adjusting the windshield



WARNING

Adjusting the windshield while driving

Accident hazard

- Only adjust the windshield when the motorcycle is stationary.

- To raise the windshield, push it **1** up and forward in arrow direction.
- To lower the windshield, push it **1** forward and downward in arrow direction.

HEATING

Operating the grip heating

- with heated grips^{OE}



Grip heating is only active when the engine is running and the side stand is retracted.



The increase in electrical consumption caused by grip heating can cause the battery to discharge when driving in the lower rotational speed range. If the battery charge level is too low, grip heating will be switched off to retain the vehicle's starting capability.

- Start engine. (➡ 153)
- Assign the Grip heating function to the (➡ 79) multi-ple rocker switch.
- Select the appropriate setting.


134 OPERATION



The handlebar grips have three heating levels **1**. The high heater output is used to heat up quickly; then it should be switched back to a lower heater output.

Operating the grip heating and seat heating

—with seat heating^{OE}

 Grip heating and seat heating are only active when the engine is running and the side stand is retracted.

- Start engine. (➡ 153)
- Assign the Heating function to the (➡ 79) multiple rocker switch.
- Press the multiple rocker switch at the top to adjust the grip heating.
- Press the multiple rocker switch at the bottom to adjust the seat heating.




The handlebar grips **1** and rider's seat **2** each have three heating levels. The high heater output is used to heat up quickly; then it should be switched back to a lower heater output.

Operating the passenger seat heater

—with seat heating^{OE}

—With passenger comfort seat^{OE}

- Start engine. (➡ 153)

 Passenger seat heating is only active when the engine is running and the side stand is retracted.

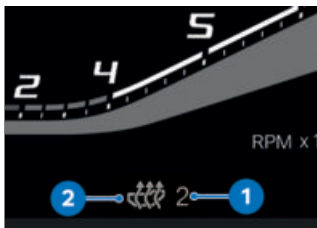


- Select the desired heating level with **1** switch.



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.

- Move switch **2** to the center position: Heating off.
- Switch **3** in one-dot position: Low heating output.
- Switch **4** in two-dot position: High heating output.



The selected heating level **1** and heated seat symbol **2** are displayed.

CENTRAL LOCKING SYSTEM

Locking

–with central locking system^{OE}




- Turn off the ignition. (▶▶▶ 95)
- Press button **1**.
 - with case^{OA}
 - » The cases are locked.<
 - with topcase^{OA}
 - » The topcase is locked.<

136 OPERATION

Unlocking

—with central locking system^{OE}

 The central locking system automatically unlocks when you turn on the ignition.



- Press button **1**.
 - with case^{OA}
 - » The cases are unlocked.◁
 - with topcase^{OA}
 - » The topcase is unlocked.◁
 - » Once a lock has been locked manually it subsequently has to be unlocked manually as well.

Automatic locking system

—with central locking system^{OE}

—with case^{OA}

or

—with central locking system^{OE}

—with topcase^{OA}

- Go to the **Settings, Vehicle settings menu**.
- **Activate the Lock with ignition off function.**

» After the ignition is turned off, the cases and topcase are automatically locked.

Emergency unlocking

—with central locking system^{OE}

—with case^{OA}

or

—with central locking system^{OE}

—with topcase^{OA}

Requirement

If the central locking system can no longer be opened, or if the cases and topcase have been closed and removed, you can open the cases and topcase manually as follows:



- Turn the key in the case lock to the **RELEASE** position.



- Turn the key in the case lock to the position of the dot and remove it.
- » Case is unlocked.

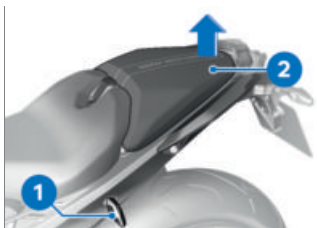


- Turn the key in the topcase lock beyond the **LOCK** position.
- » Carrying handle pops out.
- » Topcase is unlocked.

RIDER'S SEAT AND PASSENGER SEAT

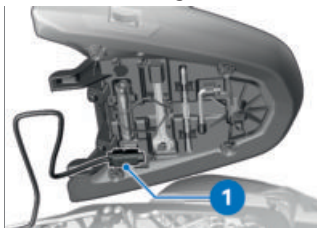
Removing the passenger seat

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



- Turn the ignition key **1** counterclockwise and hold.
- Lift the passenger seat **2** in the rear and release the ignition key.

—with seat heating^{OE}



- Disconnect the plug connection **1** of the seat heater.◁
- Lay the passenger seat on a clean, dry surface with the upholstered side down.

138 OPERATION

Installing the passenger seat —with seat heating^{OE}



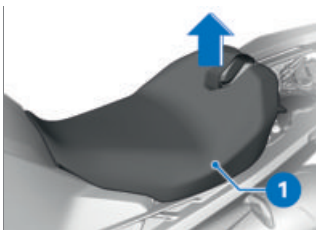
- Connect the plug connection **1** for the seat heater.◁



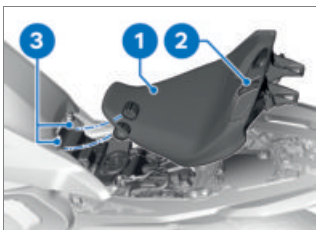
- Insert the front of the passenger seat **1** into the rear frame and press it down at the rear.
» Passenger seat audibly engages.

Removing the rider's seat

- Remove the rear seat.
(▶▶▶ 137)



- Raise front seat at rear.



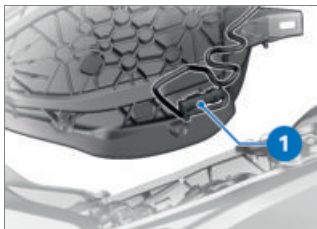
- Remove the rider's seat **1** from the bearing block **3**.

—with seat heating^{OE}

- Disconnect the plug connection **2** of the seat heater.◁
- Lay the rider's seat on a clean, dry surface with the upholstered side down.

Installing the rider's seat

—with seat heating^{OE}



- Connect the plug connection **1** for the seat heater.◁



- Insert the rider's seat into the bearing blocks **2** on the left and right and place it loosely on the motorcycle.
- Press driver's seat lightly forward in rear area and then firmly downward.
- Install the passenger seat.
(▶▶▶ 138)

SETTING

06

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142 SETTING

MIRRORS

Adjusting the mirrors




- Move mirror into desired position by twisting.

HEADLIGHTS

Headlight range and spring preload

Headlight range is generally kept constant by adjusting the chassis to suit the load state of your machine.

Only with a very heavy payload can adjustment of the spring preload be insufficient. If that is the case, the headlight beam throw must be adapted to the weight.

 If there are doubts as to the correct headlight range, have the setting checked by a repair shop, preferably by an authorized BMW Motorrad dealer.

Adjusting the headlight range



Oncoming traffic may be dazzled if the suspension is not adjusted correctly when carrying a heavy payload. To remedy this:

- Turn on the ignition. (▶▶▶ 95)
- Start engine. (▶▶▶ 153)
- Adjust the headlight range at adjustment screw **1**.

If the motorcycle is ridden again with lower payload:

- Restore basic setting of headlight.

CLUTCH

—without Automated shift assistant^{OE}

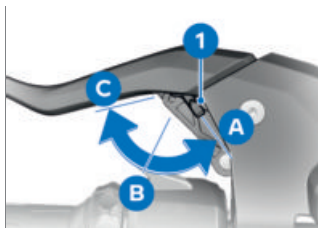
Adjusting the clutch lever

 **WARNING**


Adjusting the clutch lever while driving

Accident hazard

- Adjust the clutch lever when the motorcycle is stationary.



- Push the adjustment lever **1** into the desired position.

 The adjustment lever is easier to shift when the clutch lever is pressed forward slightly.

» Adjustment options:

- Position **A**: Minimum distance between handlebar grip and clutch lever
- Position **B**: Medium distance between handlebar grip and clutch lever
- Position **C**: Maximum distance between handlebar grip and clutch lever

GEARSHIFT LEVER AND BRAKE LEVER

- With Performance^{OE}

Adjusting the foot plate



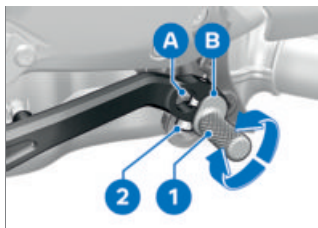
ATTENTION

Unintentional actuation of the gearshift lever

Damage to the transmission


- Check for the correct setting of the gearshift lever.
- Ensure that the gearshift lever bears no load when not in the process of gear shifting.

- The right and left foot plates are adjusted using the same method.



- You can adjust foot clearance and height to foot plate **1** by installing the foot plates in position **A** or **B** and by installing them pointing downward or upward.
- Loosen screw **2**.
- Insert foot plate **1** in the desired position **A** or **B** pointing upward or downward.
- Tighten screw **2**.

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 Foot plate on footbrake lever
M6 x 20
Thread-locking compound: micro-encapsulated
7 lb/ft (10 Nm)

BRAKES

Setting the brake lever

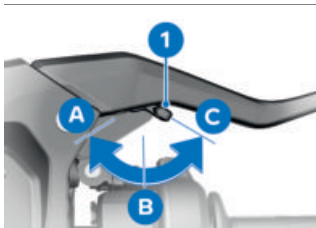


WARNING


Adjusting the brake lever while driving

Risk of accident

- Only adjust the brake lever when the vehicle is stationary.



- Push the adjustment lever **1** into the desired position.

 The adjustment lever is easier to shift when the brake lever is pressed forward.

» Adjustment options:

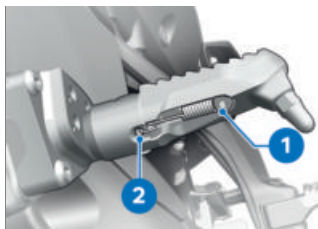
- Position **A**: Minimum distance between handlebar grip and brake lever
- Position **B**: Medium distance between handlebar grip and brake lever
- Position **C**: Maximum distance between handlebar grip and brake lever

FOOTRESTS

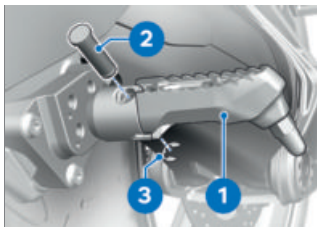
- With Performance^{OE}

Adjusting the footrests

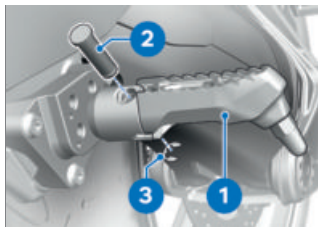
- The footrest is set the same way on the right and left.
- The position of the footrest must be set equally on the right and left.



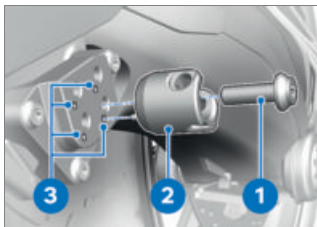
- Remove screw **1**.
- Detach the spring from eye **2**.



- Remove snap ring **3**.
- Remove bolt **2**.
- Remove rider foot peg **1**.



- Install rider foot peg **1**.
- Install bolt **2**.
- Install snap ring **3**.



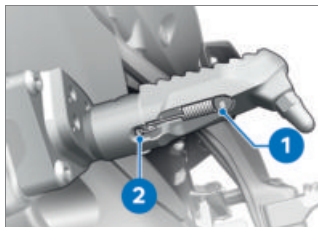
- Remove screw **1**.
- Remove foot peg joint **2** and insert in desired mount.
- Ensure that the foot peg joint **2** is correctly aligned.
 - » Centering pin is fitted in hole **3**.
- Install screw **1**.



Foot peg joint on
adapter plate

M8 x 25

21 lb/ft (28 Nm)



- Hook spring onto eye **2**.
- Install screw **1** and spring.
- To prevent the foot peg from touching the road surface at low lean angles, align the foot plate with the brake lever and gearshift lever after adjusting the foot pegs.
 - » If you have installed the foot peg joint in one of the upper positions, install the foot plate pointing upward.
 - » If you have installed the foot peg joint in one of the lower

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positions, install the foot plate pointing downward.

- Adjust the foot plate.

( 143)

RIDING

07

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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 dealer will be happy to advise you and has the correct clothing for every purpose.



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.

Vehicle load



WARNING

Reduced riding stability caused by overloading and uneven loading

Accident hazard

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

-without dynamic suspension adjustment^{OE}

- Adjust the chassis to suit the total weight (► 107).◀



-with case^{OA}

- Ensure that case volumes on left and right are equal.
- Make sure that weight is uniformly distributed between right and left.
- Pack heavy pieces of luggage and cargo as low and as close to the center of the motorcycle as possible.
- Observe the maximum payload and maximum speed; also see the Accessories chapter (► 241).◀


-with topcase^{OA}


- Observe the maximum payload and maximum speed; also see the Accessories chapter (► 246).◀

- with tank bag^{OA}
- Note the maximum payload and top speed of the tank bag.

	Payload of tank bag
max. 11 lbs (max. 5 kg)	
	Maximum speed when riding with loaded tank bag
max. 81 mph (max. 130 km/h)◀	

Speed

 Drive cold tires warm with care to extend the service life of your tires and ensure optimum road adhesion. Avoid powerful acceleration on cold tires. Slowly increase lean angles while driving the tires warm.

 To prevent the tires from overheating and to extend the service life of your tires, avoid driving at maximum speed for long periods.

If you ride at high speed, always bear in mind that various boundary conditions can negatively affect the vehicle handling of your motorcycle. These include, but are not limited to, the following:

- Adjustment of the chassis
- Unevenly distributed load
- Loose clothing
- Insufficient tire pressure
- Tire tread in poor condition

Maximum speed with studded or winter tires

DANGER

Maximum speed of the motorcycle is higher than the permissible maximum speed of the tires

Risk of accident due to tire damage at high speed

- Observe the maximum speed applicable to the tires.

With studded or winter tires, the maximum permissible speed for the tires must be observed.

Attach a sticker specifying the maximum speed permitted within the field of view of the instrument cluster.

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.

The following must be observed:

- Do not run the fuel tank dry.
- Do not run the engine with the spark plug connector removed.
- Stop the engine immediately if it misfires.
- Use unleaded fuel only.
- Comply with all specified maintenance intervals.

ATTENTION

Unburned fuel in the catalytic converter

Damage to catalytic converter

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

Danger of overheating



ATTENTION

Engine idling for a lengthy period while at a standstill

Overheating due to insufficient cooling; in extreme cases vehicle fire

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

Modifications



ATTENTION

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

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

- Do not make any modifications.

REGULAR CHECK

Observe checklist

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

Always before riding off

- Check operation of the brake system (▮▮▮ 202).
- Check operation of the lighting and signal system.
- without Automated shift assistant^{OE}
- Check clutch function (▮▮▮ 207).
- Check tire tread depth (▮▮▮ 210).
- Check tire pressure (▮▮▮ 209).
- Check that the case and luggage are firmly secured.

At every third refueling stop

- Check engine oil level (▮▮▮ 200).
- Check front brake pad thickness (▮▮▮ 202).
- Check rear brake pad thickness (▮▮▮ 203).
- Check front brake fluid level (▮▮▮ 205).
- Check rear brake fluid level (▮▮▮ 206).
- Check the coolant level (▮▮▮ 207).


STARTING

Starting the engine


- Turn on the ignition. (▮▮▮ 95)
- » Pre-Ride-Check and self-diagnoses are performed. (▮▮▮ 155)

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- 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.

—with Automated shift assistant^{OE}

 If the motorcycle is started while idling, it is prevented from engaging the gear when the side stand is folded out.

If a gear is engaged while the engine is running, the immobilizer **P** is automatically triggered when the side stand is folded out and the engine is switched off.◁

—with Automated shift assistant^{OE}

 When the starter button is pressed, Neutral **N** is automatically engaged. There may be a delay before the engine starts. The immobilizer is deactivated.◁

—with Automated shift assistant^{OE}


- Apply the brake.◁

—without Automated shift assistant^{OE}

- For cold start and at low temperatures: Pull clutch.◁



- Press and hold the starter button **1** until the engine starts.

 The starting response may be affected by low temperatures. Repeated brief load on the battery increases the battery temperature and thus the available services for the engine start.

» If the engine fails to start, the troubleshooting chart in the chapter "Technical Data" may provide assistance (▮▮▮▮ 262)
Recharge the battery before you attempt to start the engine again, or get a jump start:

- Charge the connected battery. (▮▮▮▮ 222)

- Jump-starting. (►► 219)



The starting attempt is automatically interrupted if battery voltage is too low.

Pre-Ride-Check and self-diagnosis

After the ignition is turned on, the instrument cluster performs a test of the display elements and of the indicator and warning lights. During the Pre-Ride-Check, all indicator and warning lights light up temporarily.

- » If the instrument cluster remains dark after the ignition is turned on, the troubleshooting chart in the Technical Data chapter may provide assistance. (►► 263)
- » The self-diagnosis checks the operational readiness of the BMW Motorrad ABS, and of the BMW Motorrad ASC/DTC.



blinks.



blinks slowly.

- » The indicator and warning lights go dark once a riding speed of 3 mph (5 km/h) is reached.
- » The self-diagnosis is completed.

If a fault message is displayed after self-diagnosis has been completed:

- Have the malfunction corrected as soon as possible at a repair shop, preferably an authorized BMW Motorrad dealer.

BREAKING IN

Engine

- Up to the first break-in inspection, vary the throttle opening and engine-speed range frequently; avoid riding for long periods at a constant speed.
- Choose curvy, slightly hilly routes if possible.
- Observe the engine run-in speeds.



Engine break-in speeds

<5000 min⁻¹ (Odometer reading 0...621 miles (0...1000 km))

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

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



Mileage until running-in check

311...746 miles
(500...1200 km)

Brake pads

New brake pads have to be broken in before they can achieve their optimum frictional force. This reduction in braking effect 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. They must be roughened by riding in a restrained manner at varying lean angles until the tires are run in. This breaking-in procedure is essential if the tire tread is to achieve maximum grip.

Read the tire manufacturer's information on how to break-in new tires correctly.



WARNING

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

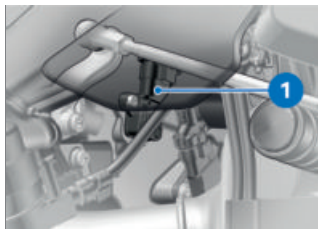
Accident hazard

- Always think well ahead and avoid extreme angles.

GEAR SHIFT ASSISTANT PRO

—with Gearshift Assistant Pro^{OE}

Function of the Gearshift Assistant Pro



- Engage the gears as usual with the foot-operated gearshift lever.
- » The Gear Shift Assistant provides assistance for upshifts and downshifts, without the rider having to actuate the clutch or throttle grip.
- This is not an automatic gearshift system.
- The rider is an essential part of the system and decides when to shift gears.

- The sensor **1** on the gearshift shaft detects the intent to shift gears and triggers the shift assistance.
- » If you are riding at a constant speed and in coasting overrun in a low gear at high RPMs, shifting gears without clutch control can cause strong power-off reactions. BMW Motorrad recommends shifting gears with clutch control in these driving situations.
- » Shift assistance is not available in the following situations:
 - With clutch actuated.
 - Gearshift lever is not in its initial position
 - After a gearshift, you must fully release the gearshift lever before another gear shift with the Gear Shift Assistant Pro can take place.
 - Further information on the Gear Shift Assistant Pro can be found in the chapter "Technology in detail" (▮▮▮▮▶ 189).

AUTOMATED SHIFT ASSISTANT (ASA)

- with Automated shift assistant^{OE}

Establishing ride readiness



If drive-ready state is established while the motorcycle is on the center stand and the brake or throttle grip is not actuated, the neutral position is automatically engaged after a short time. This prevents accidental driving off when lowering from the center stand.

If the drive-ready state is already present, this is canceled when propping up and Neutral **N** is automatically engaged.

- Turn on the ignition. (▮▮▮▶ 95)
- Start engine. (▮▮▮▶ 153)
- Fold in side stand.
- Apply the brake.
- Engage the 1st gear using the gearshift lever.
- » The motorcycle is ready to ride.
- » The manual mode **M** is active.


Manual mode Requirement

Ride readiness has been established.

- Open the throttle grip with caution to ride off.

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- Upshifting and downshifting as usual by means of the gearshift lever.
 - » The gear shift is performed insofar as the rotational speed in the required gear is between the maximum and minimum RPM.
- After a gear shift, you must fully release the gearshift lever.
- To stop, close the throttle grip completely and decelerate to a standstill.


 If the rotational speed falls below a gear-dependent minimum RPM, an automatic downshift will take place even in manual mode. This prevents the engine from stalling.

- Select the neutral position N. (▮▮▮▮ 158)

Automatic mode Requirement

Ride readiness has been established.

- Select automatic mode D (▮▮▮▮ 112).
- Open the throttle grip with caution to ride off.
 - » All gear shifts are performed automatically.

 If the gearshift lever is used to shift up or down, automatic gear selection is

temporarily suspended. Automated gear selection is resumed as soon as a harmonious transition becomes possible.

- To stop, close the throttle grip completely and decelerate to a standstill.
- Select the neutral position N. (▮▮▮▮ 158)

Selecting the neutral position Requirement

The vehicle is at a standstill with the 1st gear engaged.

- Apply the brake.
- Press the gearshift lever down and hold for some time.



- Alternative: Press and hold button 1.

N is displayed.

» The transmission is in the neutral position.

Immobilizer Requirement

Vehicle stationary, engine running and 1st gear is engaged.

- Actuate the emergency-off switch.
- Alternatively, with the engine switched off and the transmission in neutral position N: Press the gearshift lever down.

P is displayed.

- » The motorcycle is secured against rolling away.
- In rare cases, the position of the gearwheels in the transmission may prevent the immobilizer from being engaged.

P blinks.

- » Engaging the immobilizer has failed.
- Move the motorcycle forwards or backwards briefly.

P is displayed.

- » The motorcycle is secured against rolling away.
- Turn off the ignition. (☛ 95)
- To release the immobilizer, select the neutral position N

(☛ 158) or start the engine (☛ 153).

BRAKES

How do you achieve the shortest braking distance?

The dynamic load distribution between the front and rear wheel changes during braking. The greater the deceleration, the more load is transferred 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.

—without Automated shift assistant^{OE}

The clutch should also be engaged at the same time.

With the frequently instructed "emergency braking," in which the brake pressure is generated as quickly as possible and with great force, dynamic load distribution lags behind the progressive increases in decelera-

160 RIDING

tion 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 Pro.

Rear-end impact warning

—With rear-end impact warning^{OE}

If BMW Motorrad

Rear End Collision Warning (RECW) detects a speed-dependent probability of collision, the hazard warning lights are activated briefly with an increased flashing frequency.

For more information on the Rear End Collision Warning (RECW), see the chapter Technology in detail (▣▣▣ 181).

Descending mountain passes

WARNING

Braking should be done predominantly using the rear wheel brake when riding on downhill routes

Loss of braking effect, destruction of the brakes due to overheating

- Apply the front and rear wheel brake and use the engine brake.

—with Automated shift assistant^{OE}

To make the best possible use of the engine brake when descending mountain passes, select the manual mode M (▣▣▣ 112).

Wet, soiled brakes

WARNING

Decreased braking effect due to moisture and dirt

Risk of accident

- Dry brakes or clean them through braking; if necessary, clean them manually.
- Brake early until the tires have reached their full braking effect again.

Moisture and dirt on the brake discs and the brake pads result in a decrease in the braking effect.

Delayed or decreased braking effect must be expected in the following situations:

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

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 and the supporting function of the Dynamic Brake Control are available in all riding modes.

Falling cannot be excluded

Although ABS Pro and Dynamic Brake Control represent valuable support and an enormous safety advantage for the rider when braking in an inclined position, they by no means redefine the physical riding limits. It is still possible to exceed those limits through misjudgments or riding errors. In extreme cases this may result in a fall.

Use on public roads

On public roads, ABS Pro and Dynamic Brake Control help make riding your motorcycle 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. In the event of emergency braking, Dynamic Brake Control enhances the braking effect and intervenes if the throttle grip is accidentally actuated during braking.



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

PARKING THE MOTORCYCLE

Side stand

- Turn off the ignition. (🔌 95)



ATTENTION

Poor ground conditions in area of stand

Component damage caused by tipping over

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



ATTENTION

Loading of the side stand with additional weight

Component damage cause by tipping over

- Do not sit on the motorcycle when it is parked on the side stands.
 - Fold out side stand and park motorcycle.
 - Turn handlebars to left.
 - On slopes point the motorcycle uphill and engage 1st gear.
- with Automated shift assistant^{OE}
- Select the immobilizer P. (▣▶ 159)

Center stand with jack-up assistance

—with center stand^{OE}

The prop-up assistant provides support for propping up the vehicle on the center stand. Automatically increasing the chassis height results in beneficial leverage ratios for the center stand. The effort needed to prop up the motorcycle is decreased.



When the center stand is folded out, a sensor detects the intent to prop up the

motorcycle and simultaneously aligns the chassis accordingly.

Operating the prop-up assistant

—with center stand^{OE}



Actuating the prop-up assistant multiple times can drain the battery. There is a limit to repeated use of the prop-up assistant. For further attempts, the ignition must be turned off and then on again.

- Turn on the ignition. (▣▶ 95)



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.

- On slopes point the motorcycle uphill and engage 1st gear.
- with Automated shift assistant^{OE}
- Select the immobilizer P.
( 159)



- Push the center stand down using the foot plate **1** and prop up the motorcycle.
- » The chassis is automatically set to the maximum height.

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 stationary periods. Your authorized BMW Motorrad dealer can provide you with more detailed information.

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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, E15)
87 AKI (91 ROZ/RON)
87 AKI

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

Refueling procedure 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.

—without center stand^{OE}


- Put the motorcycle up on the side stand, ensuring that it is resting on a firm and level support surface.◁

—with center stand^{OE}

- Make sure the ground is level and firm and put the motorcycle on its center stand.◁
- Turn off the ignition. (▶▶▶ 95)



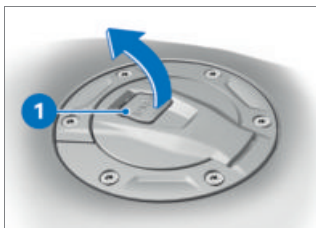
After the ignition is switched off, the fuel filler cap can be opened within the specified run-on time even without the radio-operated key being within the reception area.

	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

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the engine dies off due to lack of fuel.



Usable fuel quantity

approx. 4.5 gal (approx. 17 l)



Reserve fuel quantity

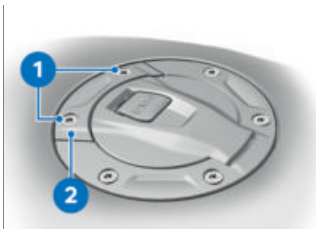
approx. 1.1 gal (approx. 4 l)

- 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 release

The fuel filler cap cannot be opened.

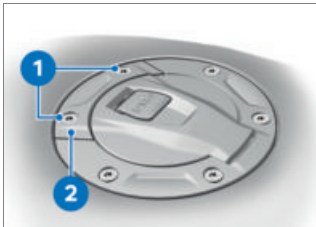
- Have the fault rectified as soon as possible by a repair shop, preferably an authorized BMW Motorrad dealer.



- Remove screws **1**.
- Remove emergency release **2**.
 - » Fuel filler cap unlocked.
- Open fuel filler cap completely.
- Refueling procedure. (▣▣▣▣ 164)
- Close fuel filler cap emergency release. (▣▣▣▣ 166)

Close fuel filler cap emergency unlocking Requirement

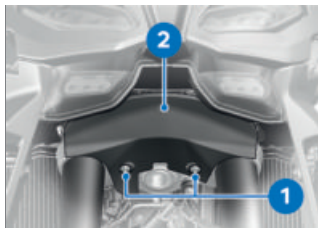
Fuel filler cap is closed.



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

FASTENING MOTORCYCLE IN PLACE FOR TRANSPORTATION

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



- Remove screws **1** and fork partition **2**.



ATTENTION

Motorcycle tips to the side when raising

Component damage caused by tipping over

- Secure the motorcycle against tipping to the side, preferably with the assistance of a second person.
- Push the motorcycle onto the transport surface, and do not prop it on its side stand.
- Secure the motorcycle from tipping with support from a second person.

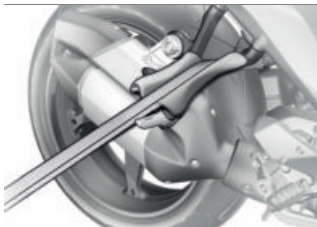


ATTENTION

Pinching of components

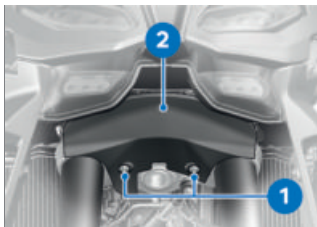
Component damage

- Do not pinch components, e.g. brake lines or wiring harnesses.
- Lay tensioning belts over the lower fork bridge in front on both sides.
- Tension tensioning belts downward.



- Fasten the rear tensioning belts on both sides on the rear frame and tighten them.
- Tighten all tensioning belts evenly; the vehicle should be

pulled down with the springs compressed as much as possible.



- After transportation, position the fork partition **2** and install the screws **1**.

TECHNOLOGY IN DETAIL

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GENERAL NOTES

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

ANTILOCK BRAKING SYSTEM (ABS)

Fully integral brake

Your motorcycle is equipped with a fully integral brake. With this brake system, both the front and rear wheel brakes are actuated upon actuation of a brake lever (hand or footbrake lever).

When braking with active ABS control, BMW Motorrad full integral ABS adapts the brake force distribution between the front and rear wheel brakes to suit the vehicle load. The brake force distribution depends on the riding mode and can be individually adjusted.



ATTENTION

Attempt at a burn-out despite integral function

Damage to rear-wheel brake and clutch

- Do not perform burn-out.

How does 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 lower the coefficient of friction of the road is, the longer the braking distance will be.

If the maximum transferable braking force is exceeded when the rider increases the brake pressure, the wheels begin to lock and riding stability is lost, and a fall can result. Before this situation occurs, ABS is activated and the brake pressure is adjusted to the maximum transferable braking force. This enables the wheels to continue to turn and maintains 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 the brakes are ap-

plied in this situation, the anti-lock braking system must reduce the brake pressure to ensure riding stability when road contact is restored. At this time, the BMW Motorrad Integral ABS Pro has to assume extremely low coefficients of friction (gravel, ice, snow) so that the running wheels rotate in every conceivable case and, as a result, the riding stability is ensured. After detecting the actual conditions, the system adjusts the optimum brake pressure.

In what ways is the BMW Motorrad Integral ABS Pro noticeable to the rider?

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

If the brake lever is pulled, then brake pressure is built up at the rear wheel with the integral function. The built-up brake pressure can be felt earlier as counter pressure if the foot-brake lever is actuated before the brake lever.

Lifting off rear wheel

However, during extremely heavy and rapid decelerations it is possible that the BMW Motorrad Integral ABS Pro cannot prevent the rear wheel from lifting off the ground. In these cases, the motorcycle can also flip end over end.



WARNING

Lifting off of the rear wheel due to heavy braking

Accident hazard

- When braking heavily, bear in mind that the ABS control cannot always be relied on to prevent the rear wheel from lifting off the ground.

How is the BMW Motorrad Integral ABS Pro designed?

The BMW Motorrad Integral ABS Pro ensures riding stability on any surface within the limits of riding physics. The system is not optimized for the special requirements encountered under the extreme conditions of competitive off-road and racetrack use. Handling should be adapted to riding skills and road conditions.

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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 switched off for safety reasons, and an ABS fault is displayed. A self-diagnosis must be completed before the fault message can be displayed.

In addition to problems at the BMW Motorrad ABS, unusual riding conditions can also result in a fault message:

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

Should a fault memory entry occur due to an unusual riding condition, the ABS function can be reactivated by turning the ignition off and then on again.

How important is regular preventive 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

The potentially shorter stopping distances which BMW Motorrad Integral ABS Pro permits must not be used as an excuse for a careless riding style. ABS is primarily a means of ensuring a safety margin in genuine emergencies.



WARNING

Braking in curves

Risk of accident despite ABS

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

Further development of ABS to ABS Pro

In the past, the BMW Motorrad ABS system provided for a very high level of safety while braking during straight-ahead riding. Now ABS Pro also offers increased safety even when performing the braking process around curves. ABS Pro prevents the wheels from locking up, even in the event that the brakes are applied quickly. ABS Pro reduces abrupt changes in steering forces, especially during shock braking, and therefore decreases the risk of the occurrence of inadvertent lift-off of the vehicle.

ABS control

From a technical standpoint, ABS Pro adjusts the ABS control to the angle of inclination of the motorcycle based 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 inclination, 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 around 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. DTC factors in the lean angle and uses lean angle and acceleration information to regulate traction more precisely and smoothly.

BMW Motorrad DTC is designed as a rider assistance system for riding on public streets. The extent to which the rider affects DTC control can be considerable (weight

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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. The BMW Motorrad DTC can be switched 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 angle of inclination increases, the capacity to accelerate is more and more limited in accordance with the laws of physics. This can result in reduced acceleration when coming out of very tight curves.

If the values for the lean angle are detected to be implausible for a long period, a substitute value is used for the angle, or the DTC function 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 traction control may be turned off automatically.

Unusual riding conditions:

- Riding on the rear wheel (wheelie) for an extended period.
- Rear wheel spinning in place with front wheel brake engaged (burn out).
- Warming up the engine on an auxiliary stand in neutral or with gear engaged.

If the front wheel loses contact with the ground under extreme acceleration, the DTC reduces the engine torque depending on the riding mode or the DTC setting, until the front wheel is touching the ground again. BMW Motorrad recommends that you respond to the front wheel lifting off by letting off on the throttle grip somewhat

to return to a stable riding state as quickly as possible.

DYNAMIC ENGINE BRAKE CONTROL (MSR)

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 dynamic engine brake control limits slip at the rear wheel to a safe, setpoint slip that is dependent on the mode and angle.

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 DTC traction control, the dynamic engine brake control compares the wheel circumferential velocities of the

front and rear wheel. With the aid of more information on the angle, the dynamic engine brake control can determine the slip or the stability reserve at the rear wheel.

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

BATTERY GUARD

What is the Battery Guard?

The Battery Guard monitors the battery state of charge or battery voltage. The Battery Guard prevents deep discharge of the battery and helps you to keep the battery properly charged.

How does the Battery Guard work?

When the vehicle is shut off, once a day the state of charge or voltage of the battery is checked. If the detected values are too low, a warning message appears after the ignition is turned on.

Depending on the availability of the BMW Motorrad Teleservices, warning messages can also be issued through electronic notifications. More infor-

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mation on the BMW Motorrad Teleservices is available from your authorized BMW Motorrad dealer.

The Battery Guard responds in multiple levels:

–**Low state of charge:** 12 V socket is activated. A connected battery charger can recharge the battery.

In combination with BMW Motorrad Teleservices:

–**Low state of charge:** Every three days, a warning message is issued with a prompt to charge the battery.

–**Critical state of charge:** Every day, a warning message is issued with a prompt to charge the battery.

DEACTIVATION CONCEPT

What is the deactivation concept?

When the ignition is turned on, the electrical system voltage and the state of charge of the battery are monitored. If there are too many electrical loads, such that the alternator no longer covers the current demand, the deactivation concept takes effect. As a result, comfort functions are degraded or deactivated according to de-

mand to ensure that driving can continue. In the event of a shutoff, a warning message appears in the instrument cluster.

The deactivation concept achieves the following:

- Stabilizes the electrical system voltage
- Ensures a positive charge-discharge balance
- Provides relief for the 12 V vehicle battery
- Provides relief for components and the wiring harness

DISTANCE CONTROL (ACC)

–with Riding Assistant^{OE}

What is ACC?

BMW Motorrad ACC is cruise control with distance control. The function enables the rider to specify a desired speed and desired distance from the vehicle in front. Cruising speed is automatically maintained as long as the distance to the road user directly ahead does not undershoot the distance selected by the rider. If it is undershot, the speed is reduced until the desired distance is reached again.

The rider is still in charge and can intervene at any time and overrule ACC.

The ACC function has two characteristics: *Comfortable* and *Dynamic*. These influence the acceleration and deceleration behavior during the control process.

How does ACC work?

Objects in front are detected by the front radar sensor. At the same time, the radar sensor uses the yaw rate and driving speed to determine the predicted travel path, i.e. the corridor in which the motorcycle will move in the next approx. 328.1 ft (approx. 100 m). If one of the detected objects is located in the driving path, a response is triggered and the speed is adjusted to ensure that the desired distance to the object is achieved.

Control functions of ACC

ACC control is divided into the three following control functions:

- Cruise control:** The speed stored by the rider is adjusted.
- Distance control:** The speed stored by the rider is adjusted while the distance to the vehicles in front is taken into account.

–**Curve control:** When cornering, the speed may be reduced and the system will attempt to achieve a comfortable lean angle (e.g. 20°). In addition, the braking and acceleration dynamics are limited as the angle increases so that the rider is not surprised by sudden braking or acceleration maneuvers. For example, curve control prevents unexpected acceleration when an object is lost and the selected speed is too high. An object can be lost if the vehicle in front is only detected by the radar to a limited extent when it is traveling around the curve.

Speed range of ACC

The ACC function can be activated in the following speed ranges:

- 19...99 mph (30...160 km/h)
- If ACC is activated in the speed range higher than 99 mph (160 km/h), the maximum speed of 99 mph (160 km/h) is selected.

Influence on the ACC performance

The rider can support the performance of ACC through the following behavior:

- Steady riding style.
- Drive as close to the center of the lane as possible behind the vehicle in front.
- Clearly change lanes during passing maneuvers to support the deselection of the vehicle in front.
- Return to the lane behind vehicles in front as soon as possible to provide time for object selection.

FORWARD COLLISION MITIGATION (FCW)

–with Riding Assistant^{OE}

What is FCW?

BMW Motorrad FCW is a forward collision warning system, which warns the rider of critical situations in parallel traffic and provides support for identifying and handling them. The function provides collision warnings and brake assistance. Collision warnings are triggered visually by the instrument cluster and haptically by warning pulses. There are two levels of collision warnings: the prewarning and the acute warning. At min-

imum, the prewarning is visually displayed in the instrument cluster. If enabled in the menu, a haptic warning is simultaneously output as a warning pulse (▣▣▣ 122). The warning pulse draws the rider's attention to the hazardous situation.

If the situation becomes even more critical, then the second step, the acute warning, follows. At minimum, the acute warning is visually displayed in the instrument cluster. If enabled in the menu, the brake assist bridges the response time of the rider by braking lightly (▣▣▣ 123).

Time-based warning threshold

To determine when the rider should be warned, the system calculates how long the rider can continue riding under the current dynamics until the rider can prevent the collision only with a controlled braking maneuver.

The warning thresholds can be postponed slightly, depending on the rider's attentiveness. An attention estimator evaluates both the current riding dynamics and potential interactions of the rider with the motorcycle to determine how attentively

the rider is watching the traffic ahead.

The time of the warning threshold can be set to **Early**, **Medium** and **Late**.

Speed range of FCW

The FCW function can monitor the traffic ahead and intervene in the following speed ranges:
 –19...99 mph (30...160 km/h)

Cross effect on ACC

The FCW is implemented in such a way that no Forward Collision Mitigation is triggered during an approaching maneuver when ACC is active. The ACC responds primarily to objects in its own lane. Therefore, the FCW may consider a vehicle cutting suddenly into the lane to be a critical object before the ACC identifies it as a vehicle ahead. In this case, Forward Collision Mitigation can also be triggered when ACC following mode is active. Unlike ACC, the FCW does not have to be reactivated for every ride.

REAR-END IMPACT WARNING (RECW)

–With rear-end impact warning^{OE}

What is RECW?

The BMW Motorrad Rear End Collision Warning (RECW) is a rear-end impact warning system to prevent accidents. The function is there to prevent impacts by issuing impact warnings. Detected vehicles with a speed-dependent impact probability within the same lane are warned by an increased frequency of the directional signals.

Influence on the RECW performance

The following conditions support the effectiveness of RECW:

- Steady riding style
- Straight road alignment
- No offset riding within a lane
- Inclined positions, max. 25 degrees

LANE CHANGE WARNING (SWW)

—with Riding Assistant^{OE}

What is the lane change warning?

The BMW Motorrad lane change warning monitors the traffic in back and signals critical driving situations to the rider before a lane change.

How does the lane change warning work?

The rider is warned if the rear radar sensor detects other road users approaching in an adjacent lane or in the blind spot to the side behind the vehicle. A distinction is made here between an information warning and an acute warning. For this purpose, the system detects the initiation of a lane change when the turn signal is actuated and warns the rider of imminent danger in good time. The warning zone increases in size as the speed differential increases, so that the system can also issue warnings about vehicles that are approaching quickly.

Lane change warning condition

The lane change warning is subject to the system conditions described in the following:

—**Rear radar range:** The radar sensor has a maximum field of vision of approx. 262.5 ft (approx. 80 m). A timely collision warning is possible up to a speed difference of 50 mph (80 km/h) with the approaching vehicle.

—**Speed ranges:** Warning messages are output at speeds above 11 mph (18 km/h) and remain as the speed decreases until 9 mph (15 km/h). During passing procedures, warning messages are output as long as the speed difference with the passed vehicle is less than 9 mph (15 km/h).

—**Rear radar detection on curves:** The full extent of radar detection is available for lean angles up to 25 degrees.

CHASSIS AND SUSPENSION ADJUSTMENT

Dynamic ESA function

Using a ride height sensor, Dynamic ESA detects movements of the chassis and suspension and responds to them by adjusting the damper valve. 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.

Load settings

- One-up
- One-up with luggage
- Two-up mode (with luggage)

How does the dynamic chassis and suspension adjustment DSA work?

- with dynamic suspension adjustment^{OE}

Dynamic Suspension Adjustment (DSA) is a semi-active chassis and suspension system that automatically responds to riding maneuvers and to the road condition. Using a ride height sensor, DSA detects movements of the running gear and responds to them by

adjusting the damper valves. In addition, the chassis and suspension characteristics can also be adjusted to suit the desired riding experience. Depending on the riding mode, the spring rate is also automatically adjusted for this purpose in addition to the damping.

Vehicle load compensation

The dynamic chassis and suspension adjustment DSA automatically adapts the motorcycle to the vehicle load. The rider does not have to take care of the vehicle load setting. When the motorcycle is started and while it is being ridden, the system monitors the spring compression and corrects the spring setting to ensure that the correct riding position is set. The damping is also automatically adjusted to the vehicle load.

Range of adjustment for damping

- Road: Damping for comfortable road travel
- Dynamic: Damping for dynamic road travel

The damping characteristics can be adapted in seven stages

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for fine-tuning to suit individual preferences.

RIDING MODE

Selection

To adjust the motorcycle to the road condition and the desired riding experience, you can select from the following riding modes:

- ECO
- RAIN
- ROAD (standard mode)
- with riding modes Pro^{OE}
- DYNAMIC
- DYNAMIC PRO

The riding mode preselection can be used to select a maximum of four riding modes.

For each of these riding modes, there is a coordinated setting for the systems DTC, ABS, MSR as well as for the engine characteristics and automatic shifting.

- with dynamic suspension adjustment^{OE}

Coordination of the DSA also depends on the selected riding mode.

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

Throttle response

- ECO: Restrained
- RAIN: Soft
- ROAD: Optimum
- DYNAMIC and DYNAMIC PRO: Direct
- DYNAMIC PRO: The throttle response can be set individually (➡ 110).
- with Automated shift assistant^{OE}

Automatic shifting

- ECO: Automated shifting for high efficiency.
- RAIN and ROAD: Optimum automatic shifting.
- DYNAMIC and DYNAMIC PRO: Automatic shifting for maximum drive power.
- DYNAMIC PRO: Automatic shifting can be set individually (➡ 110).

ABS Setting

- ROAD and DYNAMIC: The ABS setting corresponds to the respective riding mode.
- ECO and RAIN: The ABS setting corresponds to the riding mode ROAD.

- DYNAMIC PRO: The ABS setting corresponds to the riding mode DYNAMIC.
- DYNAMIC PRO: The ABS can be set individually (▣▣▣▣▶ 110).

Rear wheel lift-off detection

- ECO, RAIN and ROAD: The driver is supported as much as possible by the rear wheel lift-off detection.
- DYNAMIC and DYNAMIC PRO: The rear wheel lift-off detection offers reduced support and permits gentle lift-off of the rear wheel.

ABS Pro

- ECO, RAIN and ROAD: ABS Pro is fully available.
- DYNAMIC and DYNAMIC PRO: The support from ABS Pro is reduced compared to ECO, RAIN and ROAD.

Brake force distribution Actuating the front wheel brake

- ECO, RAIN and ROAD: The brake power is maximally distributed to the rear wheel.
- DYNAMIC and DYNAMIC PRO: The distribution of brake power to the rear wheel is reduced compared to ECO, RAIN and ROAD.

Actuating the rear wheel brake

- ECO, RAIN and ROAD: The brake power is distributed to the front wheel as much as possible.
- DYNAMIC and DYNAMIC PRO: The brake force distribution is inactive.

DTC

Riding stability

- RAIN: Intervention of the DTC occurs at such an early stage that maximum ride stability is achieved.
- ECO, ROAD and DYNAMIC PRO: The intervention of the DTC occurs later than in the RAIN riding mode. Rear wheel spinning without traction is avoided wherever possible.
- ECO, RAIN, ROAD and DYNAMIC PRO: The front wheel is prevented from lifting off.
- DYNAMIC: DTC intervenes later than in ECO, ROAD and DYNAMIC PRO riding modes. High performance on dry roads. In poor road conditions, optimum stability cannot be guaranteed.

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DYNAMIC PRO: DTC can be adjusted to suit the rider's individual preferences (▶▶▶ 110).

Effect of the engine drag torque control

- ECO, RAIN and ROAD: Maximum stability.
- DYNAMIC and DYNAMIC PRO: High stability.

Switchover

Riding modes can be changed when the vehicle is at a standstill with the ignition turned on. Riding mode changeover while driving is possible in 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 un-

til the riding mode has been switched over.

ECO mode


The ECO mode supports the rider by means of the ECO indicator and engine characteristics (E-gas adjustment) in the targeted operation of the combustion engine within the operating range of the partial load cam, which is the optimum for consumption, and thus to achieve a maximum range.

The fill level of the green bar of the ECO indicator in the instrument cluster visualizes whether the drive is operating in the consumption-optimized range of the partial load cam and, if so, at which distance to the switching threshold. The length of the bar here represents the remaining load reserve to the point of the switch to the full load cam. The color turns gray if the load requirement increases and a change to the full load cam has taken place. The ECO display varies depending on the selected gear, the load requirement and rotational speed.

Applying a defensive riding style can further reduce fuel consumption (▶▶▶ 193).

DYNAMIC BRAKE CONTROL

Dynamic Brake Control function

 The Dynamic Brake Control function is active in all riding modes. It can only be deactivated in DYNAMIC PRO riding mode by individual adjustment of the ABS.

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

Detection of emergency braking

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

Behavior during emergency braking

- If hazard braking is applied at a speed of min. 6 mph (min. 10 km/h), in addition to the ABS function, the Dynamic Brake Control function will also be activated.
- In the event of partial braking with high brake pressure gradients, Dynamic Brake Control will increase the integral brake pressure on the rear wheel. This shortens the braking distance, enabling controlled braking.

Behavior in the event of accidental activation of the throttle grip

- If the throttle grip is accidentally actuated during emergency braking (throttle position >5%), the intended braking effect is ensured by the Dynamic Brake Control ignoring the opening process of the throttle grip. This ensures the effectiveness of emergency braking.
- If the gas is shut off (throttle position <5%) during the intervention of Dynamic Brake Control, the engine torque required by the ABS brake system will be restored.
- If hazard braking has ended but the throttle grip is still being actuated, Dynamic Brake Control returns the engine torque to that required by the rider in a controlled manner.

TIRE PRESSURE MONITOR (RDC)

- with tire pressure monitor (TPM)^{OE}

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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 TPC 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 (TPM) control unit is installed on wheels without sensors, a fault message is issued.

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 within the limit range of the permissible tolerance
- Tire pressure outside of the permissible tolerance


Temperature compensation

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

The tire pressures are shown in the multifunction display with temperature compensation and are always based on a tire air temperature of 68 °F (20 °C). Tire pressure gauges at filling stations do not compensate for temperature; the tire pressure that is measured depends on the tire air temperature. 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 instrument cluster 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 rider's manual, the tire pressure should have the following value:
36.3 psi (2.5 bar)
The following value is displayed in the instrument cluster:
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 the Gear Shift Assistant Pro 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.

The engine control supports the gear change depending on:

- Desired target gear
- Engine speed
- The position of the throttle grip

The decision about using the Gearshift Assistant lies with the rider, who must take into account the driving situation as well as aspects of safety and comfort.

Benefits

- Most of the gear shifts can be done without the clutch.
- Less movement between rider and passenger due to shorter gear-change intervals.

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- The throttle grip does not have to be closed during acceleration.
- During downshifting (throttle grip closed), double-clutching is used to change the RPM.
- Shifting times are faster than when the clutch is used to shift gears.

For a gearshift request to be detected, the rider has to move the previously unused gearshift lever at a medium to fast speed in the desired direction and up to the mechanical stop of the shift control. After the gear change is completed, the gearshift lever must be fully released before the Gear Shift Assistant Pro can execute a new gear change. To achieve optimum shift quality with the Gearshift Assistant Pro, the respective load condition (throttle position) must be kept constant before and during the gear shift. In the case of gear shifting with clutch control, there is no support from the Gearshift Assistant Pro.

Downshifts

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



Maximum engine speed

max. 9000 min⁻¹

Upshifts

- Upshifting is possible until engine speed undershoots idle speed in the required gear. This prevents the idle speed from being undershot.
- A certain loss of comfort and perceptibly sharper power-off reactions may be felt if the rider upshifts in over-run mode, particularly in low gears.

AUTOMATED SHIFT ASSISTANT (ASA)

- with Automated shift assistant^{OE}

Functional principle of the Automated Gearshift Assistant (ASA)

The automated shift assistant is the logical and technical further development of the already proven shift assistant Pro. Electronically controlled actuators actuate both the clutch and the gearshift forks and thus enable automated gear shifts without input from the rider.

In manual mode M, the rider can actuate the gearshift lever in the desired direction as usual to detect a gearshift request. If the rotational speed in the target gear is within the maximum or minimum speed, the shift operation is directly implemented. If the rotational speed falls below a gear-dependent minimum RPM, an automatic downshift will take place even in manual mode. This prevents the engine from stalling.

In automated mode D, gear shifts are implemented depending on the following parameters:

- Riding mode
- RPM
- Throttle grip actuation
- Brake actuation
- Inclined position

The gear shifts are initiated according to the driving situation and dynamic requirements.

Benefits

- Dynamic and comfortable gear shifts.
- Complete omission of clutch control by the rider.
- Selection between automated and manual gear shifts.
- Automatic adaptation of the shift behavior to the rider's dynamic request in automated mode D.
- Any stalling of the engine due to unfavorable gear shifts is prevented.

HILL START CONTROL (HSC)

Hill Start Control function

The Hill Start Control prevents uncontrolled rolling back on slopes by means of targeted intervention in the integral ABS brake system, without the rider having to operate the brake lever continuously. When Hill Start Control is activated, pressure builds in the rear brake system so that the motorcycle

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remains stationary on a sloping surface.

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

Influence of gradient on brake pressure and starting behavior

- Stopping on a slight incline builds up only a small amount of brake pressure. The brake is released quickly when riding off.
- 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 activated.
- If the rear wheel slips, the brake is released again after approx. 3.3 ft (approx. 1 m). This prevents the vehicle from slipping with a locked rear wheel, for example.

–with riding modes Pro^{OE}

Hill Start Control Pro

It is possible to automatically activate the holding function using Hill Start Control Pro.


Releasing the brake when switching off the engine or during timeout

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

In addition to indicator and warning lights, the following vehicle behavior should make the rider aware that the Hill Start Control 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 integral ABS brake system sets a speed of approx. 1...1 mph (approx. 1...2 km/h).
- The rider must brake the vehicle manually.
- After two minutes, or when the brake is applied, Hill Start Control is deactivated completely.

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

SHIFTCAM

ShiftCam functional principle

The vehicle is equipped with BMW ShiftCam technology—a technique for varying the valve timing and the valve stroke on the intake side. The centerpiece of this technology is an intake trip camshaft that has two cams per valve to be actuated: one for partial load and one for full load. The partial load cam has been developed with regard to fuel economy optimization and smooth running. The partial load cam reduces both the valve timings adapted for this purpose and the intake valve stroke. Furthermore, the intake cams for the left and right intake valve differ in stroke and angle position when the partial load cam is activated. This causes a staggered opening of the two intake valves at different widths. The advantage is that the fuel-air mixture flowing into the combustion chamber is more strongly swirled and more ef-

fectively burned. Overall, this results in optimal fuel efficiency and noticeably improves the smoothness of running. The full load cam is optimized for performance and releases the maximum intake valve stroke. In order to vary the valve timing and the valve stroke, the intake camshaft is shifted axially. For this purpose, the pins of an electromechanical actuator mesh with a shift gate on the intake camshaft. This allows for the actuation of the intake valves depending on load and motor speed and, as a result, an uncompromising symbiosis of performance and low fuel consumption.

ADAPTIVE HEADLIGHT

—with Headlight Pro^{OE}

How does the adaptive headlight work?

In addition to the low-beam headlight, high-beam headlight and, where appropriate, daytime driving lights or parking lights, the main headlight is equipped with separate LED segments for the adaptive headlight. Depending on the lean angle, the LED segments are also turned on for the low-beam headlight to improve

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illumination of the inner area of
the curve.

MAINTENANCE

09

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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 "Technical data" chapter.

Special tools and thorough specialized knowledge are required to carry out some of the work described here. If in doubt, contact a repair shop, preferably an authorized BMW Motorrad dealer.

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. Regardless of the removal or installation, the hole must always be cleaned. After removal, the internal thread must be cleaned to remove adhesive. During installation, a new mi-

croencapsulated screw must be used. Before removal, make sure that you have suitable tools for cleaning the thread and a new 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!

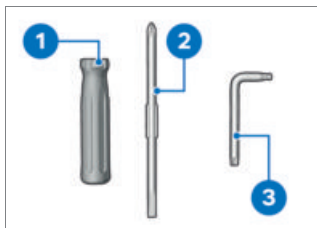
Disposable cable ties

Occasionally cables and wires are secured with disposable cable ties. To prevent cables and wires from getting damaged during removal, a suitable tool must be used, e.g. diagonal cutting pliers.

For reinstallation, cables and wires that were cut free must be secured with new disposable cable ties.

Protrusions should be cut off with cable tie pliers.

ONBOARD VEHICLE TOOL KIT



- 1 Screwdriver handle
–Use with screwdriver insert
- 2 Reversible screwdriver insert with Phillips and slotted blade
–Disconnecting battery from motorcycle.
(▶▶▶ 223)
- 3 Torx wrench, T25/T30
T25 on short end, T30 on long end
–Remove battery.
(▶▶▶ 225)
–Top up coolant.
(▶▶▶ 208)
–With Performance^{OE}
–Adjust the foot plate.
(▶▶▶ 143)
–Adjusting the footrests.
(▶▶▶ 144)

FRONT WHEEL STAND

Installing 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.
- Ensure that the motorcycle is standing securely.
- Put the motorcycle on an auxiliary stand; BMW Motorrad recommends the BMW Motorrad rear-wheel stand.
- Attach the rear-wheel stand.
(▶▶▶ 200)
–with center stand^{OE}
- Make sure the ground is level and firm and put the motorcycle on its center stand.◁

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- 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 vehicle. Your authorized BMW Motorrad dealer 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 re-

fer to the instructions for the rear-wheel stand.

- BMW Motorrad offers a suitable auxiliary stand for each vehicle. Your authorized BMW Motorrad dealer will be very happy to assist you in choosing the suitable auxiliary stand.

ENGINE OIL

Checking the engine oil level

 To prevent unnecessary pollution of the environment, BMW Motorrad recommends checking the engine oil after riding min. 31 miles (min. 50 km).


ATTENTION

Misinterpretation of the oil capacity because the oil level is temperature-dependent (the higher the temperature, the higher the oil level)

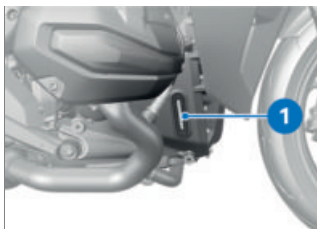
Engine damage from incorrect filling

- Only check the oil level after an extended ride or when the engine is warm.
- Run the engine in Neutral until the fan starts.
- Keep the motorcycle vertical with the engine idling for at

least 20 seconds, then turn off the engine.

 For the engine oil level to be determined correctly, the vehicle must be in the riding position (vertical). Do not park the motorcycle on the center stand or auxiliary stand.

- Wait a minute so that the oil can collect in the oil reservoir.
- Continue to hold the motorcycle vertical.



ATTENTION

Lateral tipping of the vehicle

Component damage caused by tipping over

- Secure the vehicle from tipping over laterally, preferably with the support of a second person.

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



Specified level of engine oil

Between the **MIN** and **MAX** marks

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

- Top up engine oil. (→ 201)

When the oil level is at the top edge of the indicator **1**:

- Have the oil level corrected at a repair shop, preferably an authorized BMW Motorrad dealer.

Topping up the engine oil

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




- Remove cap **1** of oil filler opening.



ATTENTION

Use of too little or too much engine oil

Engine damage from incorrect filling

- Always make sure that the oil level is correct.
- If the oil level is below the **MIN** mark, top up with max. 0.5 quarts (max. 0.5 l) engine oil.
- Install cap **1** of oil filler opening.
- Check engine oil level.
( 200)

» The resistance point must be clearly perceptible.

If resistance points are not clearly 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 by a repair shop, preferably an authorized BMW Motorrad dealer.

Checking the front brake pad thickness

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

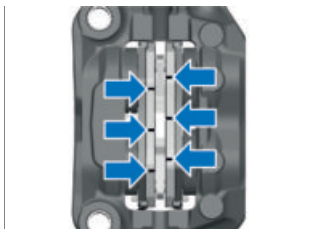
BRAKE SYSTEM

Checking brake function

- Actuate the brake lever.
 - » The resistance point must be clearly perceptible.
- Press the footbrake lever.



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



Front brake-pad wear limit

0.03 in (0.8 mm) (Only friction material 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 repair shop, preferably an authorized BMW Motorrad dealer.

Checking the rear brake pad thickness

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

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- Conduct a visual inspection of the brake pad thickness. Viewing direction: between splash guard and rear wheel toward brake pads **1**.
- Alternatively: from the vehicle's right side through the rear wheel from below to the brake pads **1**.



Rear brake-pad wear limit

0.03 in (0.8 mm) (Only friction material without carrier plate. The wear marks (grooves) must be clearly visible.)

If wear limit is reached:



WARNING

Dropping below the minimum pad thickness

Reduced braking action, damage to the brake

- In order to ensure the operating reliability of the brake system, make sure that the brake pads are not worn beyond their minimum thickness.
- Have brake pads renewed at a repair shop, preferably an authorized BMW Motorrad dealer.

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.

- Position the motorcycle vertically, making sure that the ground is firm and level.
 - with center stand^{OE}
- Make sure the ground is level and firm and put the motorcycle on its center stand.◀
- Move the handlebars to the straight-ahead position.



- 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

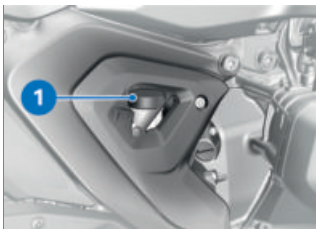
The brake fluid level must not fall below the **MIN** mark. (Brake fluid reservoir horizontal, vehicle standing upright)

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If the brake fluid level falls below the approved level:

- Have the fault rectified as soon as possible by a repair shop, preferably an authorized BMW Motorrad dealer.

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.
-
- Position the motorcycle vertically, making sure that the ground is firm and level.
—with center stand^{OE}
 - Make sure the ground is level and firm and put the motorcycle on its center stand.<

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.
-
- Check the brake fluid level at the 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 repair shop, preferably an authorized BMW Motorrad dealer.

CLUTCH

—without Automated shift assistant^{OE}

Checking the clutch function

- Pull the clutch lever.
- » The resistance point must be clearly perceptible.

If no clear resistance point can be felt:

- Have the clutch checked by a repair shop, preferably an authorized BMW Motorrad dealer.

COOLANT

Checking the coolant level

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

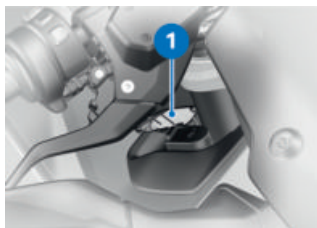


ATTENTION

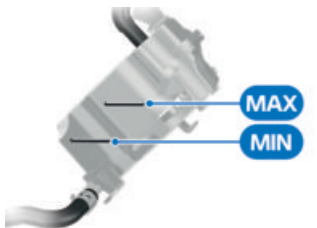
Lateral tipping of the vehicle

Component damage cause by tipping over

- Secure the vehicle from tipping over laterally, preferably with the support of a second person.
- Hold the motorcycle is vertical.



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



Required coolant level

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

If the coolant level drops below the permitted level:

- Top up coolant.

Topping up coolant

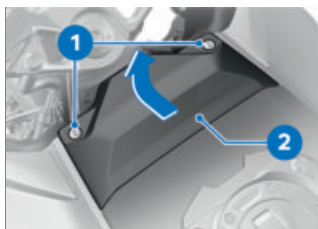


WARNING

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.



- Remove screws **1**.
- Pull the cover **2** forward and lift up to remove.




- Open the expansion tank cap **1**.

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If tire pressure is too low:

- Correct the tire pressure.

 Tire pressures can be determined with tire pressure control (RDC). These values are always shown with temperature compensation and are consistently based on a tire air temperature of 68 °F (20 °C). There is no temperature compensation in the pressure gauges at the filling stations. Therefore, the values measured there usually do not match the values shown in the instrument cluster.

Checking tire tread depth




WARNING

Riding with heavily worn tires

Risk of accident due to poorer rideability

- If necessary, replace the tires before the legally specified minimum tread depth is reached.
- Park the motorcycle, making sure the ground is level and firm.

- Check tire tread depth in main tread grooves with wear indicators.

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

When the minimum tread depth is reached:

- Replace the worn tire.

RIMS

Checking rims

- Park the motorcycle, making sure the ground is level and firm.
- Visually inspect rims for defects.
- Have damaged rims checked and, if necessary, renewed by a repair shop, preferably an authorized BMW Motorrad dealer.

WHEELS

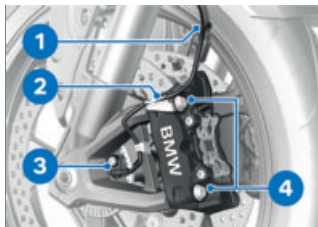
Effect of wheel sizes on suspension control systems

The wheel sizes play a major role in the ABS suspension control system. 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 convenience of these systems. The sensor rings required for wheel speed detection must also match the installed control systems and must not be replaced.

If you want to convert your motorcycle to different wheels, please contact a repair shop, preferably an authorized BMW Motorrad dealer. In some cases, the data stored in the control units can be adapted for the new wheel sizes.

Removing the front wheel

- Put the motorcycle on an auxiliary stand; BMW Motorrad recommends the BMW Motorrad rear-wheel stand.
- Attach the rear-wheel stand. (▶ 200)
 - with center stand^{OE}
- Make sure the ground is level and firm and put the motorcycle on its center stand.◀



- Detach wheel speed sensor cable from holding clips **1** and **2**.
- Remove the screw **3** and remove the wheel speed sensor from the drilled hole.
- Mask off areas of the wheel rim that could get scratched in the process of removing the brake calipers.

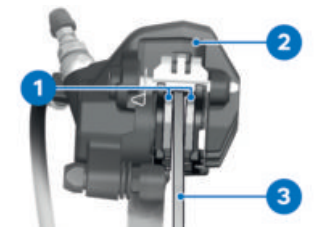
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ATTENTION

Unintentional pressing together of brake pads

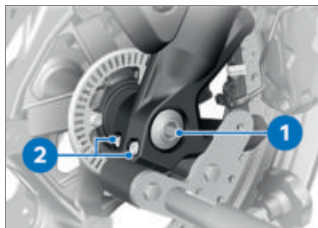
Component damage when mounting the brake caliper or when pressing the brake pads apart

- Do not actuate the brakes with the brake caliper removed.
- Remove 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**.
- Carefully pull the brake calipers back and outward to remove them from the brake disks.

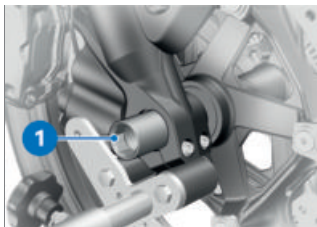
- Raise the front of motorcycle, preferably using a BMW Motorrad front wheel stand, until the front wheel rotates freely.
- Mount the front wheel stand. (▶ 199)



- Loosen axle clamping screws **2** on the left.
- Remove screw **1**.



- Loosen the right-side axle clamping screws **1**.
- Slightly press the quick-release axle inward for a better grip on the right side.



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



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

Installing the front wheel

WARNING

Use of a wheel which does not comply with series specifications

Malfunctions during control interventions by ABS and 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 screw connections with incorrect tightening torque

Damage to or loosening of screw connections

- Have the tightening torques checked by a repair shop, preferably by an authorized BMW Motorrad dealer.

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- Lubricate the contact surface on the spacer bushing **1**.



Lubricant

Unirex N3 wheel bearing grease

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

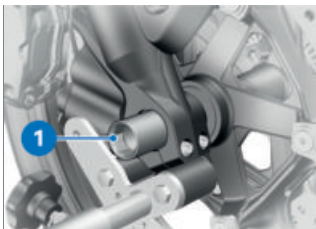


ATTENTION

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.



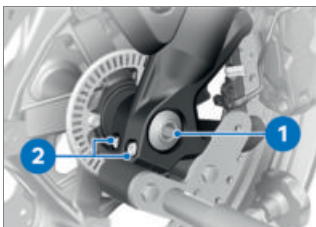
- Lubricate the quick-release axle **1**.



Lubricant


Unirex N3 wheel bearing grease

- Lift the front wheel and install the quick-release axle **1**.
- Remove front wheel stand and firmly compress front forks. Do not actuate the brake at the same time.
- Mount the front wheel stand. (▶▶ 199)



- Install the screw **1** to the specified torque. Brace quick-

release axle on the right side at the same time.

 Screw in quick-release axle

M20 x 1.5

37 lb/ft (50 Nm)

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

 Clamping bolts for quick-release axle

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

M6 x 30 - 10.9

9 lb/ft (12 Nm)



- Tighten the right-side axle clamping screws **1** to the specified torque.

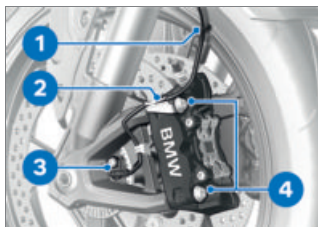
 Clamping bolts for quick-release axle

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


M6 x 30 - 10.9

9 lb/ft (12 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.

 Radial brake calipers on telescopic forks

M10 x 60

28 lb/ft (38 Nm)

- Remove adhesive tape from wheel rim.

216 MAINTENANCE



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 the wheel speed sensor cable into the holding clips **1** and **2**.
- Insert the wheel speed sensor into the drilled hole and install screw **3**.



Wheel speed sensor on fork

M6 x 16

Joint compound: micro-encapsulated

6 lb/ft (8 Nm)

Removing the rear wheel

- Put the motorcycle on an auxiliary stand; BMW Motorrad recommends the BMW Motorrad rear-wheel stand.
- Attach the rear-wheel stand. (▶ 200)

—with center stand^{OE}

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

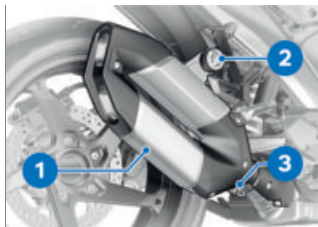


CAUTION

Hot exhaust system

Burn hazard

- Do not touch hot exhaust system.
- Let the end muffler cool down.



- Loosen the clamp **3**.
- Remove the screw with form shim **2**.
- Remove the muffler **1** and clamp **3**.



The clamp is suitable only for one-time use and must be renewed before installation of the muffler.



- Remove the screws **1** of the rear wheel while supporting the wheel.
- Tilt the rear wheel out to the side.

Installing the rear wheel

WARNING

Use of a wheel which does not comply with series specifications

Malfunctions during control interventions by ABS and DTC

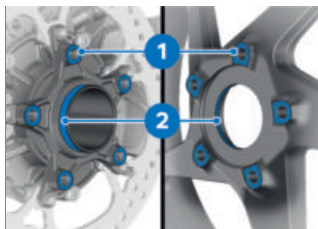
- Please see the information on the effect of wheel sizes on the ABS and DTC chassis control systems at the beginning of this chapter.

ATTENTION

Tightening screw connections with incorrect tightening torque

Damage to or loosening of screw connections

- Have the tightening torques checked by a repair shop, preferably by an authorized BMW Motorrad dealer.




- Clean contact surfaces of the wheel hub **1** and wheel centering device **2**.
- Place rear wheel on rear wheel support.

218 MAINTENANCE



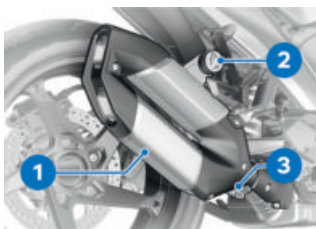
- Install the lug bolts **1** to the specified torque.

 Tighten rear wheel on wheel flange


Tightening sequence: Tighten crosswise

M10 x 1.25

44 lb/ft (60 Nm)



- Lightly lubricate the inside of the new clamp **3**.

 Lubricant

Optimoly TA

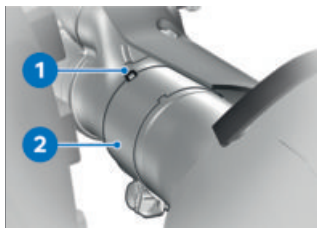
- Slide the new clamp **3** onto the muffler **1**.
- Push muffler **1** up to the stop.

- Install the screw with form shim **2**.


 Silencer on bracket

M8 x 35

14 lb/ft (19 Nm)



- Position the clamp with recess **2** in the retaining lug **1**.
» The retaining lug **1** engages in the recess of the clamp.
- Tighten the clamp with recess **2**.

 Clamp on silencer and exhaust manifold

Joint compound: Lubricating the inner clamp, Optimoly TA

16 lb/ft (22 Nm)

LIGHT SOURCES

Replacing the LED light source



WARNING

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

Safety risk

- Replace defective lighting as soon as possible. Please contact a repair shop for this purpose, preferably an authorized BMW Motorrad dealer.

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 repair shop, preferably an authorized BMW Motorrad dealer.

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.

220 MAINTENANCE

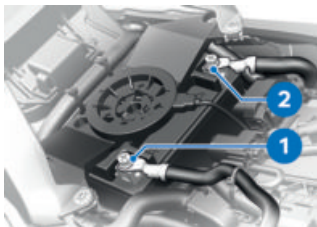


ATTENTION

Jump-starting with a voltage higher than 12 V

Damage to the motorcycle's electronics

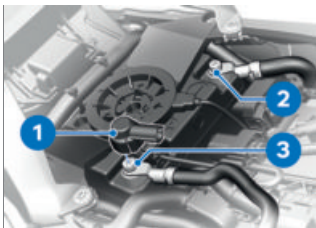
- The battery of the donor motorcycle must have a voltage of 12 V.
- Park the motorcycle, making sure the ground is level and firm.
- Remove the rider's seat. (▶▶▶ 138)
- Do not disconnect the battery from the electrical system for an external start.



- Begin by connecting one end of the red jumper cable to the positive terminal **1** of the discharged battery and the other end to the positive terminal of the donor battery.
- Then clamp one end of the black jumper cable to the donor battery's negative terminal


terminal **2** while connecting the other end to the empty battery's negative terminal.


—with M Lightweight battery^{OE}



- Remove protective cap **1**.
- Begin by connecting one end of the red jumper cable to the positive terminal **3** of the discharged battery and the other end to the positive terminal of the donor battery.
- Then clamp one end of the black jumper cable to the donor battery's negative terminal **2** while connecting the other end to the empty battery's negative terminal.◀
- Run the engine of the donor vehicle at a slightly increased rotational speed during the jump start process.
- 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 pro-

tect the starter motor and the donor battery.

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

- Allow both engines to idle for a few minutes before disconnecting jumper cables.
- Disconnect the jumper cable from the negative terminal first, then from the positive terminal.
- with M Lightweight battery^{OE}
- Install the protective cap 1.◁
- Install the rider's seat.
( 139)

BATTERY

Maintenance instructions

Proper care, charging and storage extend the battery's service life and are required for any warranty claims.

- Compliance with the points below is important in order to maximize battery service life:
- Keep the surface of the battery clean and dry.
 - Do not open the battery.
 - Be sure to read and comply with the instructions for charging the battery on the following pages.
 - Do not turn the battery upside down.



Battery design

AGM (Absorbent Glass Mat) battery, maintenance-free

–with M Lightweight battery^{OE}

Lithium-ion battery, maintenance-free◁



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 the motorcycle. This device can be used to keep the battery charged during long periods when the motorcycle is not being used even while the battery is connected to the motorcycle. For more information, consult an authorized BMW Motorrad dealer.

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Charging a 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

Improper battery chargers connected to a socket

Damage to battery charger and vehicle electronics


- Use suitable BMW battery chargers. You can obtain the right charger from your authorized BMW Motorrad dealer.

- Comply with operating instructions of charger.

 If you are unable to charge the battery via the onboard power 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.




- Charge the connected battery from the socket **1**.

 The vehicle electronics detect when the battery is fully charged. The onboard socket is switched off when this happens.

Charging a disconnected battery

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

 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.

Disconnecting battery from vehicle




ATTENTION

Incorrect battery disconnection


Danger of short circuit

- Follow the disconnection sequence.

—with Automated shift assistant^{OE}


 After disconnecting the battery from the vehicle, the immobilizer cannot be released. The motorcycle cannot be maneuvered with the immobilizer engaged. To maneuver the vehicle without a battery, park the vehicle in the neutral position N.<

—with M Lightweight battery^{OE}

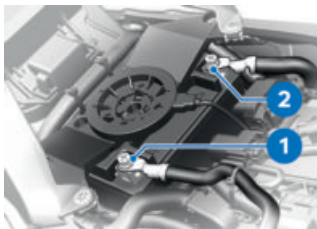
 The battery monitor's connector must only be connected/disconnected when the vehicle is de-energized.

When connecting the terminals: Disconnect the connector beforehand.

When disconnecting the terminals: Disconnect the connector afterwards.<

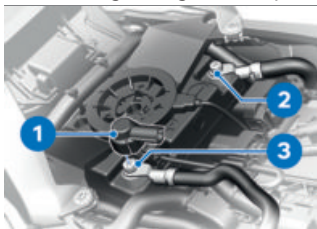
- Park the motorcycle, making sure the ground is level and firm.
- Remove the rider's seat..
( 138)

224 MAINTENANCE



- First remove the negative battery cable **2**.
- Then remove positive battery cable **1**.

—with M Lightweight battery^{OE}



- Remove protective cap **1**.
- First remove the negative battery cable **2**.
- Then remove positive battery cable **3**.◀

Connecting the battery to the motorcycle



Incorrect battery connection

Danger of short circuit

- Follow the installation sequence.

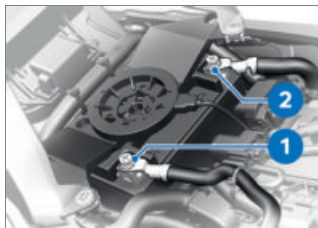
—with M Lightweight battery^{OE}




The battery monitor's connector must only be connected/disconnected when the vehicle is de-energized.

When connecting the terminals: Disconnect the connector beforehand.

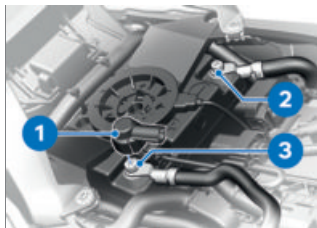
When disconnecting the terminals: Disconnect the connector afterwards.◀




- First install the positive battery cable **1**.
- Then install the negative battery cable **2**.

 Wiring harness on battery
M6 x 12
3 lb/ft (3.5 Nm)
—with M Lightweight battery ^{OE}
M6 x 8
3 lb/ft (4.5 Nm) <

—with M Lightweight battery^{OE}



- First install the positive battery cable **3**.
- Then install the negative battery cable **2**.

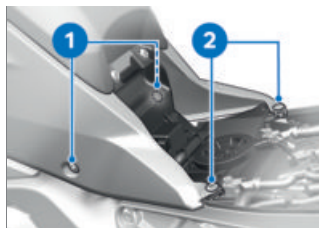
 Wiring harness on battery
M6 x 12
3 lb/ft (3.5 Nm)
M6 x 8
3 lb/ft (4.5 Nm)

- Install the protective cap **1**. <
- Install the rider's seat. (▶▶▶ 139)

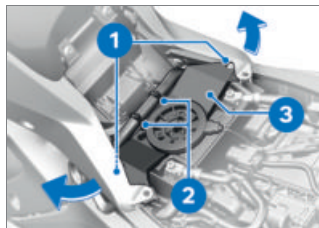
Removing the battery

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

- Turn off the anti-theft alarm system if necessary. <
- Turn off the ignition. (▶▶▶ 95)
- Disconnecting battery from motorcycle. (▶▶▶ 223)



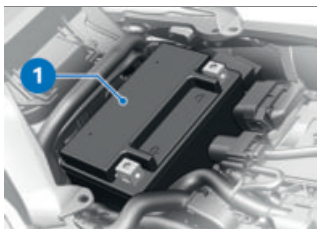
- Remove screws **1** and **2**.



- Carefully push the trim panel outward and remove the screws **1**.
- Remove the cable tie **2**.
- Remove the battery carrier and the ring antenna **3** and place it in the vehicle rear,

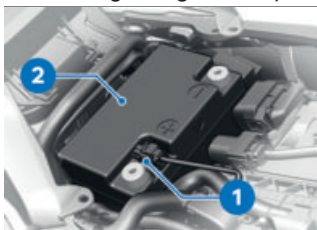
226 MAINTENANCE

taking care with the ring antenna cable.




- Lift the battery **1** up and out; use tilting movements in the event of stiff movement.

—with M Lightweight battery^{OE}




- Disconnect the plug connection **1** from the battery **2**.
- Lift the battery **2** up and out; use tilting movements in the event of stiff movement.◁

Installing the battery

 If the vehicle has been disconnected from the battery for a long time, the current date must be reset to

make sure the service display is working properly.

 After the battery type is changed, the Fault in the on-board battery. Limited onward journey possible. Drive carefully to nearest specialist workshop. message is displayed once.

If you want to convert your motorcycle to a different battery type, please contact a repair shop beforehand, preferably an authorized BMW Motorrad dealer.

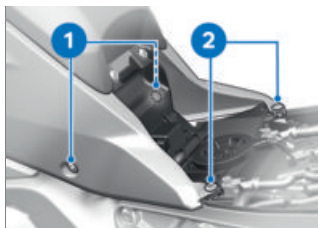


- Ensure that the cables and wires are fitted correctly in the area around the battery.
- Insert the battery **1** into the battery compartment with the positive terminal on the left side in the direction of travel.

—with M Lightweight battery^{OE}



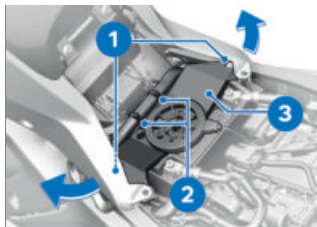
- Ensure that the cables and wires are fitted correctly in the area around the battery.
- Insert the battery **2** into the battery compartment with the positive terminal on the left side in the direction of travel.
- Connect the plug connection **1** to the battery **2**.◀



- Install screws **1** and **2**.
- Connect the battery to the motorcycle. (▮▮▮▮▶ 224)

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

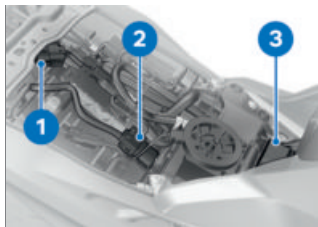
- Turn on the anti-theft alarm system if necessary.◀
- Configure system settings. (▮▮▮▮▶ 84)



- Install the battery carrier and ring antenna **3**, taking care with the ring antenna cable.
- Carefully push the trim panel outward and install the screws **1**.
- Install the cable tie **2**.

FUSES

Replacing fuses



- Turn off the ignition.
- Remove the rider's seat. (▮▮▮▮▶ 138)
- Remove connector **1**, connector **2** or cap **3**.




ATTENTION


Bypassing defective fuses

Risk of short circuit and fire

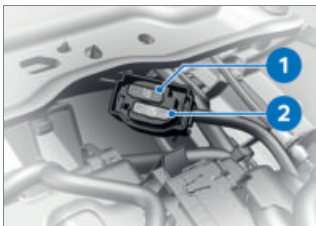
- Do not bypass defective fuses.
- Replace defective fuses with new fuses.

- Consult the fuse assignment diagram and replace the defective fuse.

 If the fuses are faulty frequently, have the electrical system checked by a repair shop, preferably a BMW Motorrad dealer.

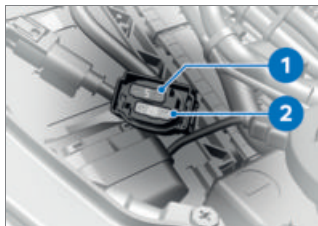
- Insert connector **1**, connector **2** or cap **3**.
- Install the rider's seat.
( 139)

Fuse layout I



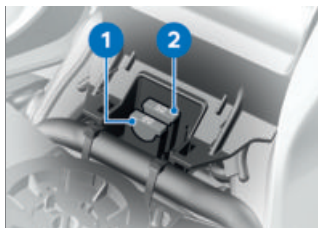
- 1** 10 A
Instrument cluster
Anti-theft alarm system
Diagnostic socket
Seat heating
Central locking system for cases and topcase
- 2** 15 A
Keyless Ride
Cut-off relay for ignition coil
Headlight

Fuse layout II



- 1 5 A
Multifunction switch, left
CCP
- 2 20 A
USB port
Voltage supply for cases
and topcase

Fuse layout III



- 1 20 A
Rear radar
Front radar
Sensor box
Windshield motor
CCP
- 2 50 A
Main fuse

DIAGNOSTIC CONNECTOR

Detaching the diagnostic connector



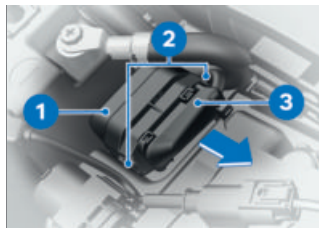
CAUTION

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 repair shop or other authorized persons.
- Have work carried out by appropriately trained personnel.
- Observe the specifications of the vehicle manufacturer.

- Remove the rider's seat..
(138)



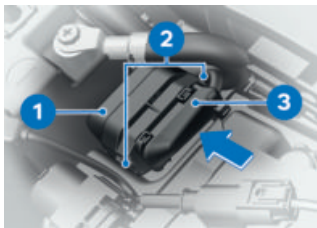
- Press locking mechanisms **2**.

230 MAINTENANCE

- Detach the diagnostic socket **3** from the holder **1**.
 - » The interface for the diagnostics and information system can be connected to the diagnostic connector **3**.

Fastening the diagnostic connector

- Disconnect the interface for the diagnostics and information system.



- Insert the diagnostic socket **3** into the holder **1**.
 - » The locking mechanisms **2** engage on both sides.
- Install the rider's seat.
(☞ 139)

ACCESSORIES

10

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USB CHARGING PORTS	235
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NAVIGATION SYSTEM	247

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 un-

approved 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 dealer

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 on-board 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 switched off during the starting procedure.
- For relief of the electrical system, the sockets are switched off 60 seconds after the ignition has been turned off. Accessories with low electrical consumption might not be detected by the vehicle electronics. In these cases, onboard sockets are already turned off shortly after the ignition is turned off.
- In case of insufficient battery voltage, the onboard sockets are switched off to maintain the starting capability of the vehicle.
- If the maximum loadability specified in the technical data is exceeded, the onboard sockets are switched off.

USB CHARGING PORTS

Notes about use



ATTENTION

Vibrations during riding

Damage to stored mobile phones

- Make sure that the stored mobile phone is suitable for use on the vehicle. To do so, ask the manufacturer about limits of use and observe them.

Automatic shutoff

The USB charging sockets are 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.

Connecting electrical devices

The ignition must be switched on before electrical devices connected to USB charging sockets can be operated. To relieve stress on the electrical system, the onboard power sockets are switched off no more than 60 seconds after the ignition is turned off.

236 ACCESSORIES

To protect the connected device, the device should be unplugged when riding in rain. When no device is connected, the cover should be closed to prevent soiling.

Cable layout

Observe the following when routing cables from USB charging sockets to additional devices:

- Cables must not impede the rider.
- Cables must not restrict the steering angle and handling characteristics.
- Make sure that cables are not or do not become trapped.

USB charging interface



It is a 5 V USB charging socket **1** charging socket providing a maximum charge current of 2.1 A (maximum charging power of 10.5 W).

Case

-with case^{OA}



The USB charging port is located in the left case (➡ 237). It is a 5 V USB charging socket **1** charging socket providing a maximum charge current of 3 A (maximum charging power of 15 W).

Topcase

-with topcase^{OA}



The USB charging port is located in the topcase (➡ 242). It is a 5 V USB charging socket **1** charging socket providing a maximum charge

current of 3 A (maximum charging power of 15 W).

CASE

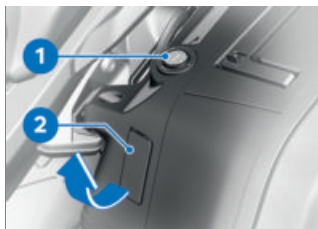
- with case^{OA}
- with case carrier, left/right^{OE}

Opening a case

- Unlock the central locking system (➡ 136) 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.
- Press the release lever **2** down as far as it will go.

Closing a case



- Press down firmly on the case lid to close it. Ensure that nothing gets trapped between the lid and case.

 The case can also be closed when the lock is in the **LOCK** position. Under such circumstances, ensure that the ignition key is not in the case.

- Turn the key in the case lock to the **LOCK** position and remove the key or lock the central locking system (➡ 135) if necessary.

238 ACCESSORIES

Locking the protective cap



- Turn the protective cap into position **1**.
» The protective cap noticeably snaps in.

Unlocking the protective cap



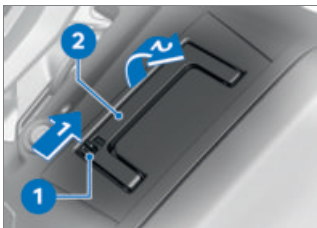
- Turn the protective cap into position **1**.
» The protective cap noticeably snaps in.

Attaching a case

- Unlock the protective cap.
(☞ 238)



- Remove the protective cap **2** from the magnetic plug connection **1**.

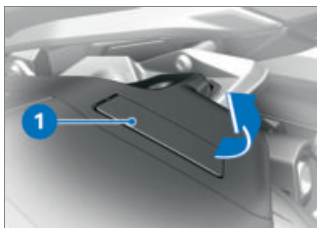


- Push the carrying handle locking device **1** to the right.
» The carrying handle **2** pops open.

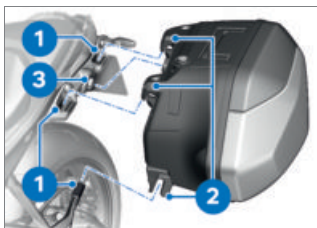


- Turn the key in the case lock to the **RELEASE** position.

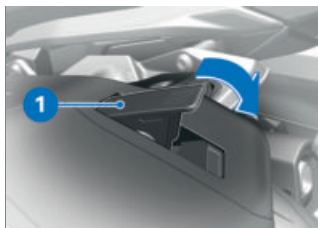
» The locking mechanism pops open.



- Fully open the locking flap **1** and hold it open.



- Check the magnetic plug connection **3** of the case and case carrier for dirt and damage.
- Insert the mounts **2** securely into the hooks **1**.



- Push locking mechanism **1** down until you feel resistance.
- » The locking mechanism engages.
- Ensure that the case is correctly seated in the holder.



- Turn the key in the case lock to position **1** and remove the key or lock the central locking system (➔ 135) if necessary.

240 ACCESSORIES



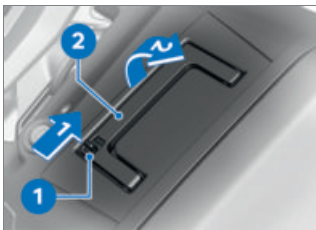
- Open case. (▣▣▣ 237)
- Attach the protective cap **1** to the holder **2**.
 - with case^{OA}
 - with case carrier, left/right^{OE}
- Lock the protective cap. (▣▣▣ 238)
- Close case. (▣▣▣ 237)



- Remove the protective cap **1** from the holder **2**.
 - with case^{OA}
 - with case carrier, left/right^{OE}
- Unlock the protective cap. (▣▣▣ 238)
- Close case. (▣▣▣ 237)



- Shut the carrying handle **1**.
 - » The carrying handle **1** audibly snaps in.



- Push the carrying handle locking device **1** to the right.
 - » The carrying handle **2** pops open.

Removing a case

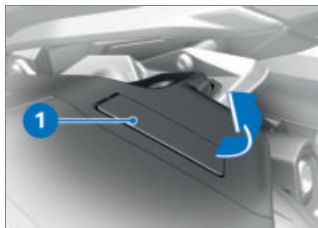
- Open case. (▣▣▣ 237)



- Turn the key in the case lock to the **RELEASE** position.
» The locking mechanism pops open.

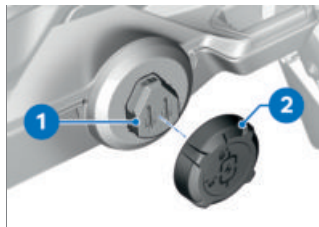


- Turn the key in the case lock to the position of the dot and remove it.



- Fully open the locking flap **1** and hold it open.

- Take the case by the carrying handle and remove it from the case carrier.
- Protect the magnetic plug connection of the case from damage, dirt and corrosion.
- Store the case in a clean and dry location.



- Check the protective cap **2** and magnetic plug connection **1** for dirt and damage.
- Attach the protective cap **2** to the magnetic plug connection **1**.
- Lock the protective cap. (☞ 238)



Maximum payload and maximum speed

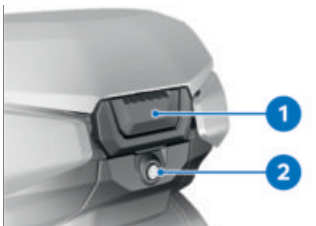
Observe maximum payload and maximum speed.

Load the cases in a way that ensures the roll stability of the motorcycle.

The following values apply to the combination described here:

242 ACCESSORIES

	Maximum speed for riding with case
	max. 124 mph (max. 200 km/h)
	Payload per case
	max. 22 lbs (max. 10 kg)



TOPCASE

Opening topcase

- with topcase^{OA}
- with topcase carrier^{OE}
- with central locking system^{OE}
- Unlock. (▣▣▣ 136)

The central locking system has malfunctioned or the topcase has been closed and removed:

- with central locking system^{OE}
- with case^{OA}
- or
- with central locking system^{OE}
- with topcase^{OA}
- Emergency release. (▣▣▣ 136)



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

- Press the lock cylinder **2** downward.
 - » The release lever **1** pops open.
- Pull the release lever **1** all the way up and open the topcase lid.
- Press the release lever **1** down until it snaps in.

Closing topcase

- with topcase^{OA}
- with topcase carrier^{OE}
- Close topcase lid forcefully.
 - » Make sure that the topcase lid audibly snaps in on both sides.
- with central locking system^{OE}
- Lock. (▣▣▣ 135)

Locking the protective cap



- Turn the protective cap into position 1.
- » The protective cap noticeably snaps in.

Unlocking the protective cap



- Turn the protective cap into position 1.
- » The protective cap noticeably snaps in.

Installing the topcase

- with topcase^{OA}
- with topcase carrier^{OE}

WARNING

Luggage improperly fastened on topcase

- Riding stability is impaired
- Do not lash the luggage fastened on the topcase down onto the topcase carrier or other moving parts.
 - Before riding off, check whether the topcase carrier has free lateral movement.

WARNING

Topcase not properly secured

- Driving safety is impaired
- Topcase must not shake and must be fastened clearance-free.



- Unlock the protective cap. (→ 243)
- Remove the protective cap 1 from the magnetic plug connection 2.

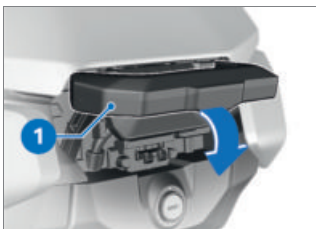
244 ACCESSORIES



- Turn the key in the topcase lock beyond the **LOCK** position.
» Carrying handle pops out.

topcase carrier for dirt and damage.

- Securely insert the hooks **3** into the receptacles **1**.



- Push carrying handle **1** down until it snaps in.
» Locking mechanism audibly engages.
- Make sure that the topcase has a correct fit on the luggage rack.
- Open topcase. (☞ 242)



- Fold carrying handle **1** all the way up.



- Check the magnetic plug connection **2** of the topcase and



- Attach protective cap to holder **1** in topcase lid and lock it (☞ 243).
- Close topcase. (☞ 242)



- Turn key in topcase lock to the **1** position and remove.
- Alternatively, turn the key to the **LOCK** position and remove the key.
- » The Topcase remains locked even when the central locking system is unlocked.

Removing the topcase

- with topcase^{OA}
- with topcase carrier^{OE}
- with topcase^{OA}
- with topcase carrier^{OE}
- Open topcase. (▶▶▶ 242)



- Remove protective cap from holder **1** in the topcase lid (▶▶▶ 243).

- Close topcase. (▶▶▶ 242)



- Turn the key in the topcase lock beyond the **LOCK** position.
- » Carrying handle pops out.




- Fold carrying handle **1** all the way up.
- Take the topcase **1** by the carrying handle and remove it from the topcase carrier.
- Protect the magnetic plug connection of the topcase from damage, dirt and corrosion.

246 ACCESSORIES



- Turn key in topcase lock to the **1** position and remove.
- Alternatively, turn the key to the **LOCK** position and remove the key.



- Check the protective cap **1** and magnetic plug connection **2** for dirt and damage.
- Attach the protective cap **1** to the magnetic plug connection **2**.
- Lock the protective cap.
( 243)

Maximum payload and maximum speed

- with topcase^{OA}
- with topcase carrier^{OE}



WARNING

Luggage improperly fastened on topcase

Riding stability is impaired




- Do not lash the luggage fastened on the topcase down onto the topcase carrier or other moving parts.
- Before riding off, check whether the topcase carrier has free lateral movement.



When lashing down lightweight luggage, make sure that the eyes are not overloaded (max. 4 lbs (max. 2 kg)). Straps or ropes must be lashed by hand and without mechanical support (e.g. ratchet).

Observe maximum payload and maximum speed.

The following values apply to the combination described here:

	Maximum speed when riding with a loaded topcase
	max. 112 mph (max. 180 km/h)
	Payload of Topcase
	max. 11 lbs (max. 5 kg)
	Total weight with topcase payload
	max. 36 lbs (max. 16.2 kg)

NAVIGATION SYSTEM

—with preparation for navigation system^{OE}

Securely fastening navigation device

- Turn on the ignition. (▣▣▣ 95)



- Press and hold button **1**.
» The ConnectedRide Mount is unlocked and the cover **2** can be removed with a rotational movement toward the front.



- Insert the navigation device **2** in the bottom mount **1** and swivel to the rear in a rotational movement.
- » The navigation system engages in the lock **3** with an audible click.
- Check that the navigation system **2** fits firmly in the ConnectedRide Mount.
- Turn off the ignition. (▣▣▣ 95)

Removing the navigation device and installing the cover

ATTENTION

Dust and dirt on contacts of ConnectedRide Mount

Damage to the contacts

- Reinstall the cover after the end of every ride.
- Turn on the ignition. (▣▣▣ 95)

248 ACCESSORIES



- Press and hold button **1**.
» ConnectedRide Mount is unlocked and navigation system **2** can be removed toward the front using a rotational movement.



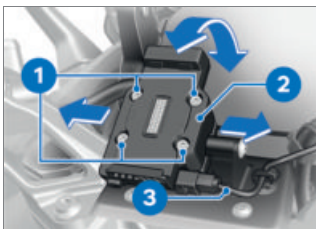
- Press and hold button **1**.
» The ConnectedRide Mount is unlocked and the cover **2** can be removed with a rotational movement toward the front.



- Insert the cover **2** in the bottom mount **1** and swivel to the rear in a rotational movement.
» The cover engages in the lock **3** with an audible click.
- Turn off the ignition. (☛ 95)


Adjusting ConnectedRide Mount settings


- Turn on the ignition. (☛ 95)




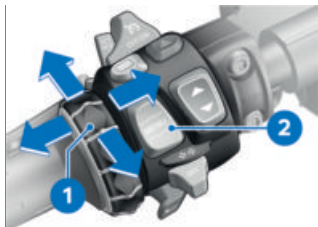
- Slacken screws **1**.
- Align the position and angle of ConnectedRide Mount **2** taking care with cable **3**.
- Tighten screws **1**.

Operating the navigation system

 The following description refers to the BMW Motorrad ConnectedRide Navigator.

 Only the latest version of the BMW Motorrad communication system is supported. A software update may be required for the BMW Motorrad communication system. In this case, please contact your authorized BMW Motorrad dealer.

If the BMW Motorrad ConnectedRide Navigator is installed and the operating focus is changed to the Navigator ( 86), some of its functions can be operated directly from the handlebars. If the BMW Motorrad ConnectedRide Navigator is connected, all connections on the vehicle are automatically disconnected. Devices that have already been paired with the Navigator are automatically connected. Now the *Navigation*, *Media* and *Telephone* functions are controlled through the Navigator.



The navigation system is operated using the Multi-Controller **1** and the rocker button **MENU 2**.

Turn the Multi-Controller 1 up/down

- Select menu
- Change volume
- Zoom in when using maps

Briefly tilt the Multi-Controller 1 to the left/right

- Confirm or cancel

Press the rocker button MENU 2 at the bottom

Change the operating focus to the instrument cluster.

Special functions

The ConnectedRide Navigator is equipped with an automatic operating focus changer. For more information, see the operating instructions of the ConnectedRide Navigator.

250 ACCESSORIES

Security settings

The safety instructions in the operating instructions of the BMW Motorrad ConnectedRide Navigator must be observed.

CARE

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CARE PRODUCTS

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.

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

WASHING THE VEHICLE

WARNING

Wet brake disks and brake pads after washing the vehicle, after water passages or in rain

Decreased braking effect, risk of accident

- Brake early until the brake disks and brake pads have dried off on their own or through braking.

ATTENTION

High water pressure generated by high-pressure cleaners or steam-jet cleaners can cause damage

Corrosion or short circuit, damage to stickers, seals, hydraulic brake system, electrical system and seat

- Do not clean the dashboard or switches with high-pressure or steam-jet equipment.
- Use high-pressure or steam-jet equipment with care.

BMW Motorrad recommends that you use BMW Insect Remover to soften and wash off insects and stubborn dirt from

painted parts before washing the motorcycle.

To prevent stains, do not wash the 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 more frequently, especially during the winter months and when riding on salted roads.




ATTENTION

Increased effect of salt caused by warm water

Corrosion

- Only use cold water to remove salt deposits.

To remove salt deposits, clean the vehicle and any add-on parts with cold water immediately after completion of 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

repair shop, preferably an authorized BMW Motorrad dealer.

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.

256 CARE

Instrument cluster

Clean the instrument cluster 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 motorcycle cleaner of the BMW Care Products series. This is particularly important in case of exposure to salt.

For additional treatment, use BMW Motorrad high-gloss polish.

Radiator

Clean the cooler regularly to prevent the engine overheating due to inadequate cooling. To do this, 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



ATTENTION

Use of silicone sprays for care of rubber seals

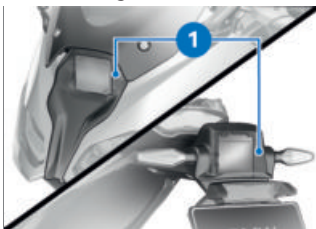
Damage to rubber seals

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

Treat rubber parts with water or BMW rubber care product.

Radar sensors

—with Riding Assistant^{OE}



Clean the covers **1** of the radar sensors with a cloth dampened with glass cleaner.

CARE OF PAINTWORK



ATTENTION

Paint damage from metal polish

Risk of damage

- Do not treat paints and chrome lacquers with metal polish.

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

Remove particularly aggressive substances immediately as otherwise the paint can be affected or become discoloured. These include spilled fuel, oil, grease and brake fluid as well as bird droppings. It is recommended to use BMW Motorrad solvent cleaner and then apply BMW Motorrad high-gloss polish to preserve the paint.

Contaminants on the paint surface are particularly easy to see after washing the vehicle. Remove this type of dirt immediately with cleaning benzene or ethyl alcohol 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.

PAINT PRESERVATION

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 for paint preservation.



Chrome lacquer must not be preserved with chrome polish.

Only use the agents recommended by BMW Motorrad.


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 stationary periods. Your authorized BMW Motorrad dealer can provide you with more detailed information.

- Clean the motorcycle.
—with Automated shift assistant^{OE}

 After disconnecting the battery from the vehicle, the immobilizer cannot be released. The motorcycle cannot be maneuvered with the immobilizer engaged. To maneuver the vehicle without a battery, park the vehicle in the neutral position N.<

- Read and observe the battery maintenance messages ( 221).
—with center stand^{OE}
- Spray the center stand bearing with a suitable lubricant.<
- without Automated shift assistant^{OE}
- Spray the brake and clutch lever bearing and the side stand bearing with a suitable lubricant.<
- with Automated shift assistant^{OE}
- Spray the brake lever bearings and the side stand bearings 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.
- Observe checklist ( 153).

TECHNICAL DATA



12

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262 TECHNICAL DATA

TROUBLESHOOTING CHART

Engine does not start.

Possible cause	Remedy
Side stand extended and gear engaged	Fold in side stand.
Gear engaged and clutch not disengaged	Shift transmission to neutral or disengage clutch.
No fuel in tank	Refueling procedure. ( 164)
Battery drained	Charge the connected battery. ( 222)
Overheating protection for starter motor has triggered. 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.

Active destination guidance is not displayed in the instrument cluster.

Possible cause	Remedy
Navigation from the BMW Motorrad Connected App was not transferred.	Go to the BMW Motorrad Connected App on the connected mobile terminal 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 instrument cluster remains dark after the ignition is turned on.

Possible cause	Remedy
There is a software error that causes a malfunction of the instrument cluster.	Turn the ignition off and on again.
The instrument cluster is damaged.	Have the malfunction corrected as soon as possible at a repair shop, preferably an authorized BMW Motorrad dealer.

264 TECHNICAL DATA

THREADED CONNECTIONS

Front wheel	Value	Valid
Screw in quick-release axle		
M20 x 1.5	37 lb/ft (50 Nm)	
Clamping bolts for quick-release axle		
M6 x 30 - 10.9	Tightening sequence: Tighten the screws 6 times, alternating between one and the other each time	
	9 lb/ft (12 Nm)	
Radial brake calipers on telescopic forks		
M10 x 60	28 lb/ft (38 Nm)	
Wheel speed sensor on fork		
M6 x 16 micro-encapsulated	6 lb/ft (8 Nm)	
Rear wheel	Value	Valid
Tighten rear wheel on wheel flange		
M10 x 1.25	Tightening sequence: Tighten crosswise	
	44 lb/ft (60 Nm)	

Gearshift lever	Value	Valid
Screw on gearshift lever and gearshift lever adjuster		
M6 x 20	6 lb/ft (8 Nm)	
Footrests	Value	Valid
Foot peg joint on adapter plate		
M8 x 25	21 lb/ft (28 Nm)	
Battery	Value	Valid
Wiring harness on battery		
M6 x 12	3 lb/ft (3.5 Nm)	
M6 x 8	3 lb/ft (4.5 Nm)	—with M Lightweight battery ^{OE}
Silencer	Value	Valid
Clamp on silencer and exhaust manifold		
Renew clamp Lubricating the inner clamp, Optimoly TA	16 lb/ft (22 Nm)	
Silencer on bracket		
M8 x 35	14 lb/ft (19 Nm)	

266 TECHNICAL DATA

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, E15) 87 AKI (91 ROZ/RON) 87 AKI
Usable fuel quantity	approx. 4.5 gal (approx. 17 l)
Reserve fuel quantity	approx. 1.1 gal (approx. 4 l)
Fuel consumption	49 mpg (4.8 l/100 km), in accordance with WMTC
—with Automated shift assistant ^{OE}	48 mpg (4.9 l/100 km), in accordance with WMTC
CO2 emissions	110 g/km, In accordance with WMTC
—with Automated shift assistant ^{OE}	112 g/km, In accordance with WMTC
Emission standard	TIER 2, measured in accordance with FTP75

ENGINE OIL

Engine oil, filling capacity	max. 1.3 gal (max. 5.0 l), with filter exchange
Specification	SAE 5W-40, API SL/JASO MA2, Additives (for instance, molybdenum-based substances) are prohibited, because they would attack the coatings on engine components, BMW Motorrad recommends BMW Motorrad ADVANTEC Ultimate oil.
Engine oil, top-up quantity	max. 0.8 quarts (max. 0.75 l), Difference between MIN and MAX

BMW recommends  **ADVANTEC**
ORIGINAL BMW ENGINE OIL

ENGINE

Engine number location	Lower left part of crankcase
Engine type	A75B13A
Engine design	Air-cooled/liquid-cooled two-cylinder four-stroke opposed-twin engine with two overhead camshafts, two compensation gears, and variable intake camshaft control BMW Shift-Cam
Displacement	1300 cc (1300 cm ³)
Compression ratio	13,3:1
Nominal capacity	143 hp (107 kW), at RPM: 7750 min ⁻¹

268 TECHNICAL DATA

Torque	110 lb/ft (149 Nm), at RPM: 6500 min ⁻¹
Maximum engine speed	max. 9000 min ⁻¹
Idle speed	1050 ^{±50} min ⁻¹ , Engine at operating temperature

CLUTCH

Clutch design	Multi-disc wet clutch (anti-hopping)
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TRANSMISSION

Transmission design	Claw-shifted 6-speed manual transmission integrated in engine housing
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REAR-WHEEL DRIVE

Gear ratio of rear-wheel drive	1.184 (45/38 teeth)
Rear axle differential oil	SAE 70W-80

FRAME

Frame design	Frame in sheet-metal shell structure with load-bearing drive unit, rear frame made of die-cast aluminum
Location of type plate	Frame at front right on steering head
Location of the vehicle identification number	Front right frame next to steering head

RUNNING GEAR

Front wheel

Type of front suspension	Upside-down telescopic forks
Spring travel, front	5.5 in (140 mm), on front wheel

Rear wheel

Type of rear-wheel guide	Cast aluminum single-sided swinging arm with BMW Motorrad Paralever
Spring travel on the rear wheel	5.5 in (140 mm), on rear wheel

BRAKES

Front wheel

Type of front wheel brake	Two-rotor disk brake, floating brake disks, diameter 12.2 in (310 mm), 4-piston radial brake caliper
Front brake pad material	Sintered metal
Free travel of brake actuation (Front wheel brake lever)	0.06...0.08 in (1.6...2.1 mm), at piston

Rear wheel

Type of rear wheel brake	Single-disc brake, diameter 11.2 in (285 mm), 2-piston floating caliper
Rear brake pad material	Sintered metal
Blow-by clearance of foot-brake lever	0.02...0.06 in (0.5...1.5 mm), Between frame and footbrake lever

270 TECHNICAL DATA

WHEELS AND TIRES

Speed category of front/rear tires	W, minimum requirement: 168 mph (270 km/h)
------------------------------------	-----------------------------------------------

Front wheel

Front wheel design	Aluminum cast wheel
Front-wheel rim size	3.50" x 17"
Front tire designation	120/70 ZR 17
Load index for front tire	At least 58
Permitted front wheel imbalance	max. 0.2 oz (max. 5 g)

Rear wheel

Rear wheel design	Aluminum cast wheel
Rear-wheel rim size	6.00" x 17"
Rear tire designation	190/55 ZR 17
Load index for rear tire	At least 75
Permitted rear wheel imbalance	max. 0.2 oz (max. 5 g)

Tire pressures

Front tire pressure	33.4 psi (2.3 bar), With cold tires in one-up mode 36.3 psi (2.5 bar), With cold tires and vehicle load in two-up mode
Rear tire pressure	36.3 psi (2.5 bar), With cold tires in one-up mode 42.1 psi (2.9 bar), With cold tires and vehicle load in two-up mode

ELECTRICAL SYSTEM

Electrical rating of onboard sockets	max. 10 A, all on-board power sockets in total
Main fuse	50 A, Main fuse
Fuse 1	10 A, Instrument cluster, anti-theft alarm system (DWA), on-board diagnostics onboard power socket, seat heating, central locking system for cases and topcase
Fuse 2	15 A, Cut-off relay, Key-less Ride, headlight
Fuse 3	5 A, Left multifunction switch, CCP
Fuse 4	20 A, USB socket, case and topcase interior light
Fuse 5	20 A, Front radar, rear radar, sensor box, CCP

Battery

Battery design	AGM (Absorbent Glass Mat) battery, maintenance-free
–with M Lightweight battery ^{OE}	Lithium-ion battery, maintenance-free
Battery voltage	12 V
–with M Lightweight battery ^{OE}	12 V
Battery capacity	14 Ah
–with M Lightweight battery ^{OE}	10 Ah

Spark plugs

Spark plugs, manufacturer and designation	NGK LMAR8AI-10
-------------------------------------------	----------------

272 TECHNICAL DATA

Light sources

All light sources	LED
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ANTI-THEFT ALARM SYSTEM

Battery type (For Keyless Ride radio-operated key)	CR 2032
----------------------------------------------------	---------

DIMENSIONS

Motorcycle length	84.2 in (2138 mm), over rear wheel
—with luggage rack ^{OE}	85 in (2160 mm), over license-plate carrier
—with topcase carrier ^{OE}	88.4 in (2245 mm), above luggage rack
Motorcycle height	53.1 in (1349 mm), Without mirror, with DIN unladen weight
—with sports suspension ^{OE}	53.5 in (1359 mm), Without mirror, with DIN unladen weight
—with windshield, high ^{OE}	55.5 in (1410 mm), without mirrors, above windshield, at DIN empty weight
Motorcycle width	33.3 in (846 mm), with mirrors 32 in (814 mm), with handlebar weights

Front-seat height	32.1 in (815 mm), without rider, at DIN unloaded vehicle weight
↔with sports suspension ^{OE}	32.5 in (825 mm), without rider, at DIN unloaded vehicle weight
↔with rider's seat, low ^{OE}	31.1 in (790 mm), without rider, at DIN unloaded vehicle weight
↔with rider's seat, high ^{OE}	32.9 in (835 mm), without rider, at DIN unloaded vehicle weight
↔with sports suspension ^{OE} ↔with rider's seat, low ^{OE}	31.5 in (800 mm), without rider, at DIN unloaded vehicle weight
↔with sports suspension ^{OE} ↔With sport seat high ^{OE}	33.3 in (845 mm), without rider, at DIN unloaded vehicle weight
Rider's inside-leg arc, heel to heel	70.9 in (1800 mm), without rider, at DIN unloaded vehicle weight
↔with sports suspension ^{OE}	71.7 in (1820 mm), without rider, at DIN unloaded vehicle weight
↔with rider's seat, low ^{OE}	69.9 in (1775 mm), without rider, at DIN unloaded vehicle weight
↔with rider's seat, high ^{OE}	72.4 in (1840 mm), without rider, at DIN unloaded vehicle weight
↔with sports suspension ^{OE} ↔with rider's seat, low ^{OE}	70.7 in (1795 mm), without rider, at DIN unloaded vehicle weight

274 TECHNICAL DATA

-with sports suspension ^{OE}	73.2 in (1860 mm), without rider, at DIN unloaded vehicle weight
-With sport seat high ^{OE}	

WEIGHTS

Unloaded vehicle weight	540 lbs (245 kg), DIN unladen weight, ready for road, fuel tank 90 % full, without OE
Gross vehicle weight	1014 lbs (460 kg)
Maximum payload	474 lbs (215 kg)
Payload per case	max. 22 lbs (max. 10 kg)
Payload of Topcase	max. 11 lbs (max. 5 kg)

PERFORMANCE DATA

Pullaway performance on uphill grades (with a permissible total weight)	32 %
Maximum speed	153 mph (246 km/h)
Maximum speed for riding with case	max. 124 mph (max. 200 km/h)

SERVICE

13

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REPORTING SAFETY DEFECTS

If you think that your vehicle 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 dealer or BMW of North America, LLC.

You can contact the NHTSA by calling 1-888-327-4236 to reach the Vehicle Safety Hotline (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 the following website: <http://www.safercar.gov>.

Canadian customers who wish to report a safety-related 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 vehicle safety from <http://www.tc.gc.ca/road-safety>.

RECYCLING

Disposal of a vehicle

When the vehicle has reached the end of its life cycle, BMW Motorrad recommends giving it to a collection point designated by the manufacturer.

The respective national legal requirements apply to this collection and recycling in general. Information about recycling and sustainability can be retrieved at the country-specific websites of the manufacturer. More information can be requested from your authorized BMW Motorrad dealer or another qualified service partner or a repair shop.

BMW MOTORRAD SERVICE

With its worldwide dealer network, BMW Motorrad can attend to you and your motorcycle in over 100 countries around the globe. Authorized BMW Motorrad dealers 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

dealer at our website:
bmw-motorrad.com



Improperly performed maintenance and repair work

Risk of accident as a result of damage

- BMW Motorrad recommends that you have work of this nature done by a repair shop, preferably by an authorized BMW Motorrad dealer.

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).

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You can obtain information on the contents of the BMW Motorrad Services from your authorized BMW Motorrad dealer.

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 preventive maintenance. If an entry is made in the vehicle's service history, service-related data is stored on the central IT systems that can be accessed via BMW.

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. An authorized BMW Motorrad dealer or repair shop can view the data entered in the service history.

Objection

At an authorized BMW Motorrad dealer or repair shop, the vehicle owner can object to the entry of data in the 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

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 (mobile service, breakdown assistance, vehicle recovery and retrieval, etc.).

Your authorized BMW Motorrad dealer will be happy to provide information about the available range of mobility services and contract durations.

MAINTENANCE WORK

BMW pre-delivery check

The BMW pre-delivery check is carried out by your authorized BMW Motorrad dealer before it turns the vehicle over to you.

BMW running-in check

The BMW running-in check must be carried out between 300 mi (500 km) and 750 mi (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 distance covered. Your authorized BMW Motorrad dealer 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. Servicing has to be brought forward if this distance covered is reached before the next scheduled service appointment.

The service display in the display reminds you of the approaching 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. The listed repair procedures are due at the respective specified mileage levels or the specified time intervals.

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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	X	X	X	X	X	X	X	X	X	X ^a	
3		X	X	X	X	X	X	X	X	X	X	X ^a	
4			X		X		X		X		X		X ^b
5			X		X		X		X		X		
6			X		X		X		X		X		
7			X		X		X		X		X		
8				X ^d			X ^d						
9									X ^d				
10												X ^c	X ^c

- 1 BMW break-in inspection (including oil and oil filter change)
- 2 Standard scope of BMW Motorrad service
- 3 Engine oil change with filter
- 4 Oil change in the bevel gears
- 5 Check valve clearance
- 6 Replace all spark plugs
- 7 Replace the air filter insert
- 8 Visually inspect and lubricate the universal shaft
- 9 Replace the universal shaft

- 10 Change brake fluid in the entire system
 - a annually or every 6000 mi (10000 km) (whichever comes first)
 - b every two years or every 12000 mi (20000 km) (whichever comes first)
 - c at first after one year, then every two years
 - d relative to the service life of the component

BMW MOTORRAD BREAK-IN SERVICE

BMW Motorrad break-in service

The BMW Motorrad break-in service repair procedures are listed below. The actual scope of maintenance required for your vehicle may differ.

- Setting the service date and remaining distance
- Performing the vehicle test using the BMW Motorrad diagnostic system
- Engine oil change with filter
- Change oil in the angular gearbox
- Checking the front wheel brake fluid level
- Checking the rear wheel brake fluid level
- Checking the coolant level
- Check the tire tread depth and tire pressure
- Checking the lighting and signal system
- Functional check for engine starting suppression
- Final inspection and road safety check
- Performing the vehicle test using the BMW Motorrad diagnostic system
- Confirming the BMW service in the vehicle literature

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
- Visual inspection of the clutch system
- Visual inspection of the brake lines, brake hoses and connections
- Checking the front brake pads and brake discs for wear
- Checking the front wheel brake fluid level
- Checking the rear brake pads and brake disc for wear
- Checking the rear wheel brake fluid level
- Checking the coolant level
- Checking side stand for ease of movement
- Checking center stand for ease of movement
- Checking the tire pressure and tread depth
- Checking the lighting and signal system
- Functional check for engine starting suppression
- Final inspection and road safety check
- Performing the vehicle test using the BMW Motorrad diagnostic system
- 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 Motorrad pre-delivery check

performed

on _____

Stamp, signature

BMW Motorrad break-in service

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	<input type="checkbox"/>	<input type="checkbox"/>
Oil change in engine with filter	<input type="checkbox"/>	<input type="checkbox"/>
Oil change in rear angular gearbox	<input type="checkbox"/>	<input type="checkbox"/>
Checking valve clearance	<input type="checkbox"/>	<input type="checkbox"/>
Replacing all spark plugs	<input type="checkbox"/>	<input type="checkbox"/>
Replacing air filter insert	<input type="checkbox"/>	<input type="checkbox"/>
Visual inspection and lubricate universal shaft (during preventive maintenance)	<input type="checkbox"/>	<input type="checkbox"/>
Removing/installing or replacing universal shaft	<input type="checkbox"/>	<input type="checkbox"/>
Changing brake fluid in entire system	<input type="checkbox"/>	<input type="checkbox"/>

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	<input type="checkbox"/>	<input type="checkbox"/>
Oil change in engine with filter	<input type="checkbox"/>	<input type="checkbox"/>
Oil change in rear angular gearbox	<input type="checkbox"/>	<input type="checkbox"/>
Checking valve clearance	<input type="checkbox"/>	<input type="checkbox"/>
Replacing all spark plugs	<input type="checkbox"/>	<input type="checkbox"/>
Replacing air filter insert	<input type="checkbox"/>	<input type="checkbox"/>
Visual inspection and lubricate universal shaft (during preventive maintenance)	<input type="checkbox"/>	<input type="checkbox"/>
Removing/installing or replacing universal shaft	<input type="checkbox"/>	<input type="checkbox"/>
Changing brake fluid in entire system	<input type="checkbox"/>	<input type="checkbox"/>

Notes

Stamp, signature

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BMW Motorrad Service

performed

on _____

at km _____

Next service

latest

on _____

or, if reached earlier

at km _____

Work performed

	Yes	No
BMW Motorrad Service	<input type="checkbox"/>	<input type="checkbox"/>
Oil change in engine with filter	<input type="checkbox"/>	<input type="checkbox"/>
Oil change in rear angular gearbox	<input type="checkbox"/>	<input type="checkbox"/>
Checking valve clearance	<input type="checkbox"/>	<input type="checkbox"/>
Replacing all spark plugs	<input type="checkbox"/>	<input type="checkbox"/>
Replacing air filter insert	<input type="checkbox"/>	<input type="checkbox"/>
Visual inspection and lubricate universal shaft (during preventive maintenance)	<input type="checkbox"/>	<input type="checkbox"/>
Removing/installing or replacing universal shaft	<input type="checkbox"/>	<input type="checkbox"/>
Changing brake fluid in entire system	<input type="checkbox"/>	<input type="checkbox"/>

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	<input type="checkbox"/>	<input type="checkbox"/>
Oil change in engine with filter	<input type="checkbox"/>	<input type="checkbox"/>
Oil change in rear angular gearbox	<input type="checkbox"/>	<input type="checkbox"/>
Checking valve clearance	<input type="checkbox"/>	<input type="checkbox"/>
Replacing all spark plugs	<input type="checkbox"/>	<input type="checkbox"/>
Replacing air filter insert	<input type="checkbox"/>	<input type="checkbox"/>
Visual inspection and lubricate universal shaft (during preventive maintenance)	<input type="checkbox"/>	<input type="checkbox"/>
Removing/installing or replacing universal shaft	<input type="checkbox"/>	<input type="checkbox"/>
Changing brake fluid in entire system	<input type="checkbox"/>	<input type="checkbox"/>

Notes

Stamp, signature

290 SERVICE

BMW Motorrad Service

performed

on _____

at km _____

Next service

latest

on _____

or, if reached earlier

at km _____

Work performed

	Yes	No
BMW Motorrad Service	<input type="checkbox"/>	<input type="checkbox"/>
Oil change in engine with filter	<input type="checkbox"/>	<input type="checkbox"/>
Oil change in rear angular gearbox	<input type="checkbox"/>	<input type="checkbox"/>
Checking valve clearance	<input type="checkbox"/>	<input type="checkbox"/>
Replacing all spark plugs	<input type="checkbox"/>	<input type="checkbox"/>
Replacing air filter insert	<input type="checkbox"/>	<input type="checkbox"/>
Visual inspection and lubricate universal shaft (during preventive maintenance)	<input type="checkbox"/>	<input type="checkbox"/>
Removing/installing or replacing universal shaft	<input type="checkbox"/>	<input type="checkbox"/>
Changing brake fluid in entire system	<input type="checkbox"/>	<input type="checkbox"/>

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	<input type="checkbox"/>	<input type="checkbox"/>
Oil change in engine with filter	<input type="checkbox"/>	<input type="checkbox"/>
Oil change in rear angular gearbox	<input type="checkbox"/>	<input type="checkbox"/>
Checking valve clearance	<input type="checkbox"/>	<input type="checkbox"/>
Replacing all spark plugs	<input type="checkbox"/>	<input type="checkbox"/>
Replacing air filter insert	<input type="checkbox"/>	<input type="checkbox"/>
Visual inspection and lubricate universal shaft (during preventive maintenance)	<input type="checkbox"/>	<input type="checkbox"/>
Removing/installing or replacing universal shaft	<input type="checkbox"/>	<input type="checkbox"/>
Changing brake fluid in entire system	<input type="checkbox"/>	<input type="checkbox"/>

Notes

Stamp, signature

292 SERVICE

BMW Motorrad Service

performed

on _____

at km _____

Next service

latest

on _____

or, if reached earlier

at km _____

Work performed

	Yes	No
BMW Motorrad Service	<input type="checkbox"/>	<input type="checkbox"/>
Oil change in engine with filter	<input type="checkbox"/>	<input type="checkbox"/>
Oil change in rear angular gearbox	<input type="checkbox"/>	<input type="checkbox"/>
Checking valve clearance	<input type="checkbox"/>	<input type="checkbox"/>
Replacing all spark plugs	<input type="checkbox"/>	<input type="checkbox"/>
Replacing air filter insert	<input type="checkbox"/>	<input type="checkbox"/>
Visual inspection and lubricate universal shaft (during preventive maintenance)	<input type="checkbox"/>	<input type="checkbox"/>
Removing/installing or replacing universal shaft	<input type="checkbox"/>	<input type="checkbox"/>
Changing brake fluid in entire system	<input type="checkbox"/>	<input type="checkbox"/>

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	<input type="checkbox"/>	<input type="checkbox"/>
Oil change in engine with filter	<input type="checkbox"/>	<input type="checkbox"/>
Oil change in rear angular gearbox	<input type="checkbox"/>	<input type="checkbox"/>
Checking valve clearance	<input type="checkbox"/>	<input type="checkbox"/>
Replacing all spark plugs	<input type="checkbox"/>	<input type="checkbox"/>
Replacing air filter insert	<input type="checkbox"/>	<input type="checkbox"/>
Visual inspection and lubricate universal shaft (during preventive maintenance)	<input type="checkbox"/>	<input type="checkbox"/>
Removing/installing or replacing universal shaft	<input type="checkbox"/>	<input type="checkbox"/>
Changing brake fluid in entire system	<input type="checkbox"/>	<input type="checkbox"/>

Notes

Stamp, signature

294 SERVICE

BMW Motorrad Service

performed

on _____

at km _____

Next service

latest

on _____

or, if reached earlier

at km _____

Work performed

	Yes	No
BMW Motorrad Service	<input type="checkbox"/>	<input type="checkbox"/>
Oil change in engine with filter	<input type="checkbox"/>	<input type="checkbox"/>
Oil change in rear angular gearbox	<input type="checkbox"/>	<input type="checkbox"/>
Checking valve clearance	<input type="checkbox"/>	<input type="checkbox"/>
Replacing all spark plugs	<input type="checkbox"/>	<input type="checkbox"/>
Replacing air filter insert	<input type="checkbox"/>	<input type="checkbox"/>
Visual inspection and lubricate universal shaft (during preventive maintenance)	<input type="checkbox"/>	<input type="checkbox"/>
Removing/installing or replacing universal shaft	<input type="checkbox"/>	<input type="checkbox"/>
Changing brake fluid in entire system	<input type="checkbox"/>	<input type="checkbox"/>

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	<input type="checkbox"/>	<input type="checkbox"/>
Oil change in engine with filter	<input type="checkbox"/>	<input type="checkbox"/>
Oil change in rear angular gearbox	<input type="checkbox"/>	<input type="checkbox"/>
Checking valve clearance	<input type="checkbox"/>	<input type="checkbox"/>
Replacing all spark plugs	<input type="checkbox"/>	<input type="checkbox"/>
Replacing air filter insert	<input type="checkbox"/>	<input type="checkbox"/>
Visual inspection and lubricate universal shaft (during preventive maintenance)	<input type="checkbox"/>	<input type="checkbox"/>
Removing/installing or replacing universal shaft	<input type="checkbox"/>	<input type="checkbox"/>
Changing brake fluid in entire system	<input type="checkbox"/>	<input type="checkbox"/>

Notes

Stamp, signature

RADIO EQUIPMENT TFT INSTRUMENT CLUSTER	299
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RADIO EQUIPMENT TFT INSTRUMENT CLUSTER

For all countries without EU

Model name: ICC65V2

Manufacturer

Robert Bosch GmbH
Robert-Bosch-Platz 1, 70839
Gerlingen, Germany

Technical Information

BT operating frq. Range: 2402 - 2480 MHz

BT version: 4.2 (no BTLE)

BT output power: < 4 dBm

WLAN operating frq. Range: 2412 - 2462 MHz

WLAN standards:

IEEE 802.11 b/g/n

WLAN output power: < 20 dBm

Country

Canada

This device complies with Industry Canada's licence-exempt RSSs and part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause interference, and
- (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Changes or modifications not expressly approved by the party

responsible for compliance could void the user's authority to operate the equipment.

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'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Radio Frequency (RF) Exposure Information

The radiated output power of the Wireless Device is below the Industry Canada (IC) radio frequency exposure limits. The Wireless Device should be used in such a manner such that the potential for human contact during normal operation is minimized. This device has also been evaluated and shown compliant with the IC RF Exposure limits under mobile exposure conditions.

Informations concernant l'exposition aux fréquences radio (RF)
La puissance de sortie émise par l'appareil de sans fil est inférieure à la limite d'exposition

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aux fréquences radio d'Industry Canada (IC). Utilisez l'appareil de sans fil de façon à minimiser les contacts humains lors du fonctionnement normal. Ce périphérique a également été évalué et démontré conforme aux limites d'exposition aux RF d'IC dans des conditions d'exposition à des appareils mobiles (antennes sont supérieures à 20 cm à partir du corps d'une personne).

United States (USA)

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.

CAUTION:

Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

This device complies with Industry Canada's licence-exempt RSSs and part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause interference, and
- (2) this device must accept any interference, including interference that may cause undesired operation of the device.

RF exposure warning

This equipment must be installed and operated in accor-

dance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provided with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.

KEYLESS RIDE SYSTEM MAIN UNIT

For all countries without EU

Model name: ZB005

Manufacturer

ZADI S.p.A.

Via Carlo Marx 138, 41012 Carpi (MO), Italy

Technical Information

Nominal voltage:

13,5 V

Operating voltage:

6,7 - 16 V

Operating temperature:

-20 °C - +60 °C

Operating frequency LF:

134,5 kHz

Operating frequency HF:

433,92 MHz

RF power:

< 66 dB μ A/m

IP grade:

IP5K6K

Country

Canada

IC: 22239-KLRMZB005

This device complies with Industry Canada 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, including interference that may cause undesired operation of the device.

This Class B digital device complies with Canadian ICES-003.

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'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

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Cet appareil numérique classe B est conforme à la norme Canadien NMB-003.

United States (USA)

FCC ID: VFZKLRMZB005

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.

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.

Changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

RF Radiation Exposure

This product complies with FCC and ISED radiation exposure limits set forth for an uncontrolled environment. The antenna should be installed and operated with minimum distance of 20 cm between the radiator and your body.

KEYLESS RIDE SYSTEM ACTIVE KEY

For all countries without EU

Model name: ZB006

Manufacturer

ZADI S.p.A.

Via Carlo Marx 138, 41012 Carpi
(MO), Italy

Technical Information

Battery type

CR2032

Nominal voltage:

3 V

Operating voltage:

2,5 - 3,16 V

Operating temperature:

-20 °C - +60 °C

Operating frequency LF:

134,5 kHz

Operating frequency HF:

433,92 MHz

RF power:

< 10 mW e.r.p.

IP grade:

IP5K7

Country

Canada

IC: 22239-KLRKZB006

This device complies with Industry Canada 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, including interference that may cause undesired operation of the device.

This Class B digital device complies with Canadian ICES-003.

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'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Cet appareil numérique classe B est conforme à la norme Canadien NMB-003.

United States (USA)

FCC ID: VFZKLRKZB006

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

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

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.

Changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

RF Radiation Exposure

This product complies with FCC and ISED radiation exposure limits set forth for an uncontrolled environment. The antenna should be installed and operated with minimum distance of 20 cm between the radiator and your body.

MID RANGE RADAR

For all countries without EU

Model name: ARS513/ARS5-B

Manufacturer

ADC Automotive Distance Control Systems GmbH
Peter-Dornier-Straße 10, 88131
Lindau, Germany

Technical information

Frequency band: 76 - 77 GHz
 Output/Transmission power:
 2,0 W (33 dBm RMS EIPR)

Country

Canada

Model: ARS5-B

IC: 4135A-ARS5B

This device complies with Industry Canada licence-exempt RSS standard(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 IC 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 colocated or operating in conjunction with any other antenna or transmitter.

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;

(2) l'utilisateur de 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 rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps. Ce transmetteur ne doit pas être placé au même endroit ou utilisé simultanément avec un autre transmetteur ou antenne.

United States (USA)

Model: ARS5-B

FCC ID: OAYARS5B

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

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between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

FCC Notice

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

SHORT RANGE RADAR

For all countries without EU

Model name: SRR521/SRR5-B

Manufacturer

ADC Automotive Distance Control Systems GmbH
Peter-Dornier-Straße 10, 88131
Lindau, Germany

Technical information

Frequency band: 76 - 77 GHz
Output/Transmission power:
1,58 W (32 dBm RMS EIPR)

Country

Canada

Model: SRR5-B
IC: 4135A-SRR5B

This device complies with Industry Canada licence-exempt RSS standard(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 IC 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 colocated or operating in conjunction with any other antenna or transmitter.

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;

(2) l'utilisateur de 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 rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps. Ce transmetteur ne doit pas être placé au même endroit ou utilisé simultanément avec un autre transmetteur ou antenne.

United States (USA)

Model: SRR5-B

FCC ID: OAYSRR5B

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.

FCC Notice

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

RADIO EQUIPMENT TYRE PRESSURE CONTROL (RDC)

For all countries without EU

Model name:

Wus moto gen 3

Manufacturer

LDL Technology S.A.S.

Parc Technologique du Canal,
3 rue Giotto, 31520 Ramonville,
France

Technical information

Frequency band: 433,92 MHz

Maximum effective radiated

power: 16,75 dBm

Country

United States (USA)

This device complies with Part 15 of the FCC Rules and Industry Canada 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.

Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

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RADIO EQUIPMENT TYRE PRESSURE CONTROL (RDC)

For all countries without EU

Model name:

Wus moto gen 3 4x4

Manufacturer

LID Technologies S.A.S.

Parc Technologique du Canal,
3 rue Giotto, 31520 Ramonville,
France

Technical information

Frequency band: 433,92 MHz
Maximum effective radiated
power: - 16,75 dBm

Country

Canada

This device complies 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 interference received, including interference that may cause undesired operation of the device.

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 d'accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

United States (USA)

This device complies with Part 15 of the FCC rules and Industry Canada licence-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.

Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

RADIO EQUIPMENT INTELLIGENT EMERGENCY CALL

For all countries without EU

Model name: TL1M23NE

Manufacturer

LG ELECTRONICS INC.
10, Magokjungang 10-ro,
Gangseo-gu Seoul, Republic of
Korea

Country

Canada

IC: US0186.2022.000413

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 3.5 cm between the radiator & your body. Operation is subject to the following two conditions:

- (1) this device may not cause interference, and
- (2) this device must accept any interference, including interference that may cause undesired operation of the device.

The manufacturer is not responsible for any radio or tv interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

Avis d'Industrie Canada sur l'exposition aux rayonnements

Cet appareil est conforme aux limites d'exposition aux rayonnements d'Industrie Canada pour un environnement non contrôlé.

Il doit être installé de façon à garder une distance minimale de 3.5 centimètres entre la source de rayonnements et votre corps.

L'exploitation est autorisée aux deux conditions suivantes :

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

Le fabricant n'est pas responsable des interférences radioélectriques causées par des modifications non autorisées apportées à cet appareil. de telles modifications pourrait annuler l'autorisation accordée à l'utilisateur de faire fonctionner l'appareil.

United States (USA)

FCC ID: BEJTM04ANNABM2

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

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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.

Changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

This device complies with Industry Canada's licence-exempt RSSs and part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause interference, and
- (2) this device must accept any interference, including interfer-

ence that may cause undesired operation of the device.

This device complies with FCC radiation exposure limits set forth for an uncontrolled environment. This device should be installed and operated with minimum distance 3.5 cm between the radiating element of this device and the user.

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The descriptions and illustrations in this manual may vary from your own motorcycle's actual equipment, depending upon its equipment level and accessories as well as your specific national-market version. No claims shall 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.

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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](http://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, E15) 87 AKI (91 ROZ/RON) 87 AKI
--------------------------	--------------------------------------------------------------------------------------------------------------------------------------

Usable fuel quantity	approx. 4.5 gal (approx. 17 l)
----------------------	--------------------------------

Reserve fuel quantity	approx. 1.1 gal (approx. 4 l)
-----------------------	-------------------------------

Tire pressures

Front tire pressure	33.4 psi (2.3 bar), With cold tires in one-up mode 36.3 psi (2.5 bar), With cold tires and vehicle load in two-up mode
---------------------	---------------------------------------------------------------------------------------------------------------------------

Rear tire pressure	36.3 psi (2.5 bar), With cold tires in one-up mode 42.1 psi (2.9 bar), With cold tires and vehicle load in two-up mode
--------------------	---------------------------------------------------------------------------------------------------------------------------

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

