BMW
MOTORRAD

RIDER'S MANUAL

R 1250 GS



MAKE LIFE A RIDE

Vehicle data

Model

Vehicle Identification Number

Colour code

Date of first registration

Registration number

Dealership details

Person to contact in Service department

Ms/Mr

Phone number

Dealership address/phone number (company stamp)

YOUR BMW.

We congratulate you on your choice of a vehicle from BMW Motorrad and welcome you to the community of BMW riders. Familiarise yourself with your new vehicle so that you can ride it safely and confidently in all traffic situations.

About this rider's manual

Read this rider's manual carefully before starting to use your new BMW. It contains important information on how to operate the controls and how to make the best possible use of all your BMW's technical features.

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

If the time comes to sell your BMW, please remember to hand over this rider's manual to the new owner. It is an important part of the vehicle.

We hope you will enjoy riding your BMW and that all your journeys will be pleasant and safe

BMW Motorrad.

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GENERAL INSTRUCTIONS

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4 GENERAL INSTRUCTIONS

QUICK & EASY REFERENCE

An important aspect of this rider's manual is that it can be used for quick and easy reference. Consulting the extensive index at the end of this rider's manual is the fastest way to find information on a particular topic or item. To first read an overview of your vehicle, please go to Chapter 2. All maintenance and servicing work on the vehicle is documented in the "Service" section. The record of the maintenance work you have had performed on your vehicle is a precondition for generous treatment of goodwill claims.

ABBREVIATIONS AND SYMBOLS

CAUTION Low-risk hazard. Non-avoidance can lead to slight or moderate injury.

WARNING Medium-risk hazard. Non-avoidance can lead to fatal or severe injury.

DANGER High-risk hazard. Non-avoidance leads to fatal or severe injury.

ATTENTION Special notes and precautionary measures. Non-compliance can lead to damage to the vehicle or accessory and, consequently, to voiding of the warranty.

Specific instructions on how to operate, control, adjust or look after items of equipment on the motorcycle.

- Instruction.

» Result of an activity.

Reference to a page with more detailed information.

◁ Indicates the end of a passage relating to specific accessories or items of equipment.

Tightening torque.

Technical data.

NV National-market version.

OE	Optional equipment. The vehicles are assembled complete with all the BMW Motorrad optional equipment originally ordered.
OA	Optional accessories. You can obtain BMW Motorrad optional accessories through your authorised BMW Motorrad dealer; optional accessories have to be retrofitted to the vehicle.
ABS	Anti-lock brake system.
D-ESA	Electronic chassis and suspension adjustment.
DTC	Dynamic Traction Control.
DWA	Anti-theft alarm.
EWS	Electronic immobiliser.
MSR	Dynamic engine brake control.
RDC	Tyre pressure monitoring.

EQUIPMENT

When you ordered your BMW Motorrad, you chose various items of custom equipment. This rider's manual describes optional equipment (OE) and selected optional accessories (OA) provided by BMW. This explains why the manual may also contain descriptions of equipment that you might not have selected. Please note, too, that on account of country-specific differences, your motorcycle might not be exactly as illustrated.
If your motorcycle contains equipment that has not been described, its description can be found in a separate manual.

TECHNICAL DATA

All dimensions, weights and power ratings stated in the rider's manual are quoted to the standards and comply with the tolerance requirements of the Deutsches Institut für Normung e. V. (DIN).
Technical data and specifications in this rider's manual are guide values. The vehicle-specific data may deviate from these, for example as a result

of selected optional equipment, the national-market version or country-specific measuring procedures. Detailed values can be taken from the vehicle registration documents, or can be obtained from your authorised BMW Motorrad retailer or another qualified service partner or specialist workshop. The specifications in the vehicle documents always have priority over the information provided in this rider's manual.

CURRENCY

The high safety and quality standards of BMW motorcycles are maintained by constant development work on designs, equipment and accessories. Because of this, your vehicle may differ from the information supplied in the rider's manual. Nor can BMW Motorrad entirely rule out errors and omissions. We hope you will appreciate that no claims can be entertained on the basis of the data, illustrations or descriptions in these operating instructions.

ADDITIONAL SOURCES OF INFORMATION

Authorised BMW Motorrad retailer

Your authorised BMW Motorrad retailer will be happy to answer any questions you may have.

Internet

The rider's manual for your vehicle, operating and installation instructions for accessories and general information about BMW Motorrad, in relation to technology, for example, are available for download from **bmw-motorrad.com/manuals**.

CERTIFICATES AND OPERATING LICENCES

The certificates for the vehicle and the official operating licences for accessories can be downloaded from **bmw-motorrad.com/certification**.

DATA MEMORY

General

Control units are installed in the vehicle. Control units process data that they receive, for example, from vehicle sensors, or that they generate themselves or exchange between

each other. Some control units are required for the vehicle to function safely or provide assistance during riding, for example assistance systems. In addition, control units enable comfort or infotainment functions.
Information on data that has been stored or exchanged can be obtained from the manufacturer of the vehicle, for example via a separate booklet.

Personal reference
Each vehicle is identified with a clear vehicle identification number. Depending on the country, the vehicle identification number, the number plate and the corresponding authorities can be referenced to ascertain the vehicle owner. There are also other ways to use data obtained from the vehicle to trace the rider or vehicle owner, for example using the ConnectedDrive user account.

Data protection rights
In accordance with applicable data protection laws, vehicle users have certain rights in relation to the manufacturer of the vehicle or in relation to companies which collect or process personal data.

Vehicle users have the right to obtain full information at no cost from persons or entities storing personal data of the vehicle user.
These entities may include:
–Manufacturer of the vehicle
–Qualified service partners
–Specialist workshops
–Service providers

Vehicle users have the right to request information on what personal data has been stored, for what purpose the data is used, and where the data comes from. To obtain this information, proof of ownership or use is required.
The right to information also includes information about data that has been shared with other companies or entities.
The website of the vehicle manufacturer contains the applicable data protection information. This data protection information includes information on the right to have data deleted or corrected.
The manufacturer of the vehicle also provides their contact details and those of the data protection officer on their website.

The vehicle owner can also request that a BMW Motorrad retailer or another qualified service partner or specialist workshop read out the data that is stored in the vehicle for a charge.
The vehicle data is read out using the legally prescribed socket for on-board diagnosis (OBD) in the vehicle.

Legal requirements for the disclosure of data

As part of its legal responsibilities, the manufacturer of the vehicle is obligated to make its stored data available to the relevant authorities. This data is provided in the required scope in individual cases, for example to clarify a criminal offence.
In the context of applicable laws, public agencies are entitled in individual cases to read out data from the vehicle themselves.

Operating data in the vehicle

Control units process data to operate the vehicle.
This includes, for example:

- Status reports of the vehicle and its individual components, for example wheel speed, wheel circumferential velocity, deceleration
- Environmental conditions, for example temperature

The data is only processed in the vehicle itself and is generally non-permanent. The data is not stored beyond the operating period.
Electronic components, for example control units, contain components for storing technical information. Information can be temporarily or permanently stored on the vehicle condition, component loads, incidents or errors.
This information is generally used to document the condition of a component, a module, a system or the surrounding area, for example:

- Operating conditions of system components, for example filling levels, tyre pressure
- Malfunctions and faults in important system components, for example light and brakes
- Response of the vehicle in special riding situations, for example engagement of the driving dynamics systems

– Information on incidents resulting in damage to the vehicle

The data is necessary for the provision of control unit functions. Furthermore, the data is used to detect and rectify malfunctions and to enable the vehicle manufacturer to optimise vehicle functions.
The vast majority of this data is non-permanent and is only processed in the vehicle itself. Only a small amount of the data is stored in incident or fault memories as required by events.
If services are accessed, for example repairs, service processes, warranty cases and quality assurance measures, this technical information can be read out of the vehicle together with the vehicle identification number.
The information can be read out by a BMW Motorrad retailer or another qualified service partner or specialist workshop. The legally stipulated socket for on-board diagnosis (OBD) in the vehicle is used to read out the data.
The data is obtained, processed and used by the relevant parts of the retailer network. The data is used to document the technical conditions of the vehicle, to help with error localization, to comply with warranty obligations and to improve quality.
In addition, the manufacturer has various product monitoring obligations arising from product liability legislation. To meet these obligations, the vehicle manufacturer requires technical data from the vehicle.
The data from the vehicle can also be used to check warranty claims from the customer.
Error and incident memories in the vehicle can be reset during servicing or repair work by a BMW Motorrad retailer or another qualified service partner or specialist workshop.

Data input and data transfer in the vehicle

General

Depending on the equipment, comfort and customised settings can be stored in the vehicle and can be changed or reset at any time.
If required, data can be entered in the entertainment and communication system of the

vehicle, for example using a smartphone.
Depending on the individual equipment, this includes:
– Multimedia data, such as music for playback
– Contacts data for use in connection with a communication system or an integrated navigation system
– Entered destinations
– Data on the use of internet services. This data can be stored locally in the vehicle or is located on a device that is connected to the vehicle, for example smartphone, USB stick, MP3 player. If this data is stored in the vehicle, the data can be deleted at any time.

This data is transferred to third parties only if personally requested within the context of using online services. This depends on the selected settings when using the services.

Incorporation of mobile devices

Depending on the equipment, mobile devices connected to the vehicle, for example smartphones, can be controlled using the operating elements of the vehicle.

The image and sound of the mobile device can then be output via the multimedia system. At the same time, specific information is transferred to the mobile device. Depending on the type of integration, this includes, for example, position data and additional general vehicle information. This enables optimal use of the selected apps, for example navigation or music playback.
The type of additional data processing is determined by the provider of the respective app. The scope of the possible settings depends on the corresponding app and the operating system of the mobile device.

Services

General

If the vehicle has a wireless connection, this enables the exchange of data between the vehicle and other systems. The wireless connection is enabled by the vehicle's own transceiver unit or using personally integrated mobile devices, for example smartphones. Online functions can be accessed through this wireless connection. These include online services and

apps that are provided by the vehicle manufacturer or by other providers.

Services of the vehicle manufacturer

For online services of the vehicle manufacturer, the individual functions are described at suitable points, for example rider's manual, website of the manufacturer. At the same time, information is also provided on the relevant data protection law. Personal data may be used to provide online services. Data is exchanged using a secure connection, for example with the IT systems provided by the vehicle manufacturer. Obtaining, processing and using personal data outside of the normal provision of services requires legal permission, contractual agreement or consent. It is also possible to have the entire data connection activated or deactivated. Statutory functions are excluded from this.

Services from other providers

When using online services from other providers, these services are subject to the responsibility and the data protection and operating conditions of the individual provider. The vehicle manufacturer has no influence on the content that is exchanged in this instance. Information on the type, scope and purpose of the data capture and use of personal data as part of the services of third parties can be ascertained from the individual provider.

INTELLIGENT EMERGENCY CALL SYSTEM

– with intelligent emergency call[OE]

Principle

The intelligent emergency call system enables manual or automatic emergency calls, for example in the event of an accident.

The emergency calls are received by an emergency call centre that is commissioned by the vehicle manufacturer.

For information on operating the intelligent emergency call

system and its functions see (➠ 71).

Legal basis

Processing of personal data using the intelligent emergency call system is in line 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 basis for the activation and function of the intelligent emergency call system is the concluded Connected-Ride contract for this function, as well as the corresponding laws, ordinances and directives of the European Parliament and of the European Council.
The relevant ordinances and directives regulate the protection of natural persons during the processing of personal data.
The processing of personal data by the intelligent emergency call system satisfies the European directives for the protection of personal data.

The intelligent emergency call system processes personal data only with the agreement of the vehicle owner.
The intelligent emergency call system and other services with additional benefits can process personal data only with the express permission of the person affected by the data processing, for example the vehicle owner.

SIM card

The intelligent emergency call system operates via the mobile phone network using the SIM card installed in the vehicle.
The SIM card is permanently logged into the mobile phone network to enable rapid connection setup. Data is sent to the vehicle manufacturer in the event of an emergency.

Improving quality

The data that is transferred in an emergency is also used by the manufacturer of the vehicle to improve product and service quality.

Location determination

The position of the vehicle can be determined exclusively by the mobile phone network provider based on the mobile

phone site locations. It is not possible for the provider to trace a connection between the vehicle's VIN and the phone number of the installed SIM card. Only the manufacturer of the vehicle can link a VIN and the phone number of the SIM card installed in a particular vehicle.

Log data of emergency calls

The log data of emergency calls is stored in a memory of the vehicle. The oldest log data is regularly deleted. The log data includes, for example, information on when and where an emergency call was made. In exceptional cases, the log data can be read out of the vehicle memory. As a rule, log data is only read out following a court order, and this is only possible if the corresponding devices are connected directly to the vehicle.

Automatic emergency call

The system is designed so that, following a sufficiently serious accident, which is detected by sensors in the vehicle, an emergency call is automatically activated.

Sent information

When making an emergency call using the intelligent emergency call system, the system forwards the same information to the designated emergency call centre as is forwarded to the public emergency operations centre by the statutory emergency call system eCall. In addition, the intelligent emergency call system sends the following additional information to an emergency call centre commissioned by the vehicle manufacturer and, if required, to the emergency services:

- Accident data, for example the direction of impact detected by the vehicle sensors, to assist the emergency services response.
- Contact details, for example the phone number of the installed SIM card and the phone number of the rider, if available, to enable rapid contact with those involved in the accident if required.

Data storage

The data for an activated emergency call is stored in the vehicle. The data contains information on the emergency

call, for example the location and time of the emergency call. The voice recordings of the emergency call are stored at the emergency call centre. The voice recordings of the customer are stored for 24 hours in case details of the emergency call need to be analysed. After this, the voice recordings are deleted. The voice recordings of the employee of the emergency call centre are stored for 24 hours for quality assurance purposes.

Information on personal data

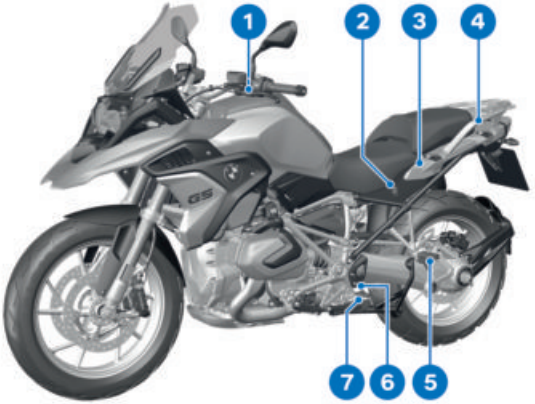
The data that is processed as part of the intelligent emergency call is processed exclusively to carry out the emergency call. As part of its statutory obligation, the manufacturer of the vehicle provides information about the data that it has processed and any data that it still has stored.

GENERAL VIEWS

02

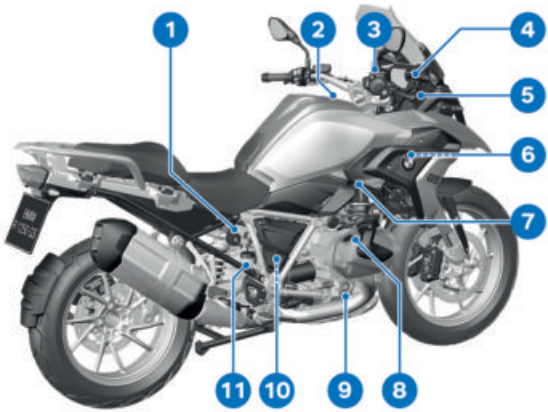
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MULTIFUNCTION SWITCH, RIGHT 23
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GENERAL VIEW, LEFT SIDE



1 Fuel filler neck (➠ 159)
2 12 V socket
3 Seat lock (➠ 133)
4 Passenger grab handle
5 Rear footrest
6 Setting the rear damping (down at the spring strut) (➠ 139)
7 Rider footrest

GENERAL VIEW, RIGHT SIDE



1 Adjustment of spring preload for rear wheel (➠ 138)

2 Air filter (under the centre trim panel) (➠ 208)

3 Brake-fluid reservoir, front (➠ 196)

4 Height adjustment of the windscreen (➠ 128)

5 USB charging socket (➠ 227)

6 Vehicle identification number (on steering-head bearing)
Type plate (on steering-head bearing)

7 Coolant-level indicator (➠ 198)
Coolant reservoir (➠ 199)

8 Oil filler opening (➠ 193)

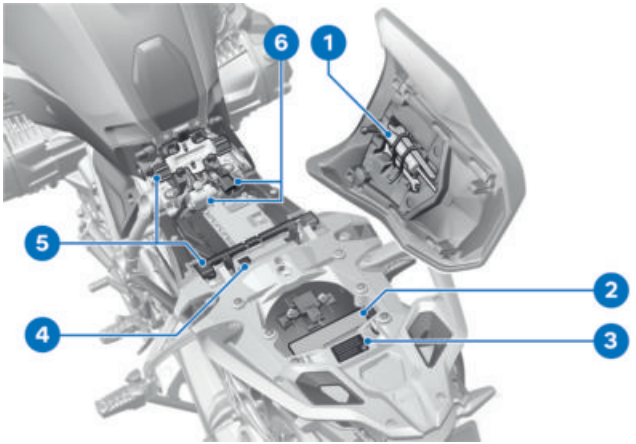
9 Engine oil level indicator (➠ 191)

10 Behind the side trim panel (bottom right frame tube):
Battery (➠ 215)
Remote positive terminal (➠ 214)
Diagnostic connector (➠ 221)

11 Brake-fluid reservoir, rear (➠ 197)

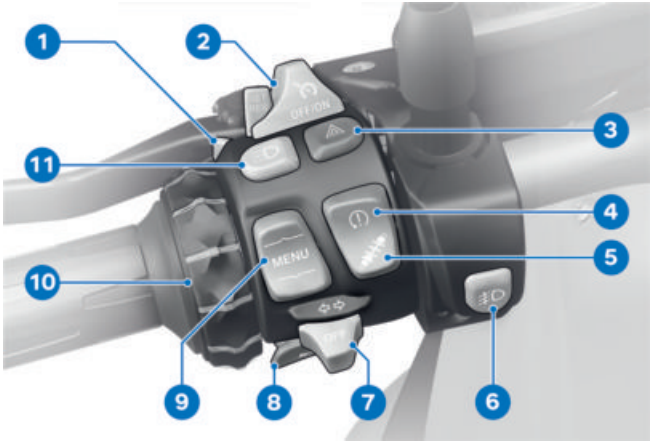
20 GENERAL VIEWS

UNDERNEATH THE SEAT



1 Toolkit (➠ 190)
2 Rider's manual
3 Tyre pressures table
4 Payload table
5 Adjustment of rider's seat height (➠ 136)
6 Fuses (➠ 220)

MULTIFUNCTION SWITCH, LEFT



1 High-beam headlight and headlight flasher (➠ 74)
2 Cruise control (➠ 87)
3 Hazard warning lights (➠ 77)
4 DTC (➠ 78)
5 Dynamic ESA (➠ 79)
6 Auxiliary headlights (➠ 75)
7 Turn indicators (➠ 77)
8 Horn
9 MENU rocker button (➠ 103)
10 Multi-Controller (➠ 103)
11 Daytime riding light (➠ 75)

MULTIFUNCTION SWITCH, RIGHT

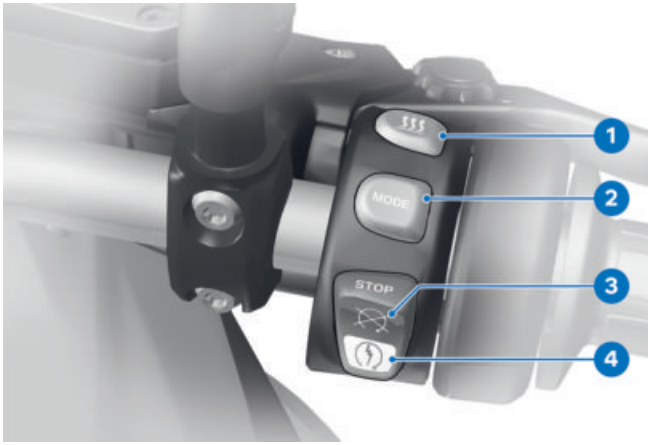
–with intelligent emergency call[OE]



1 Heating (➠ 95)
2 Riding mode (➠ 82)
3 Emergency-off switch (kill switch) (➠ 70)
4 Starter button (➠ 148)
5 SOS button
Intelligent emergency call (➠ 71)

MULTIFUNCTION SWITCH, RIGHT

–without intelligent emergency call[OE]



1 Heating (➠ 95)
2 Riding mode (➠ 82)
3 Emergency-off switch (kill switch) (➠ 70)
4 Starter button (➠ 148)

INSTRUMENT CLUSTER



1 Indicator and warning lights (➠ 28)
2 TFT display (➠ 29)
3 Indicator light
DWA (➠ 93)
Keyless Ride (➠ 67)
4 Photosensor (for adapting the brightness of the instrument lighting)

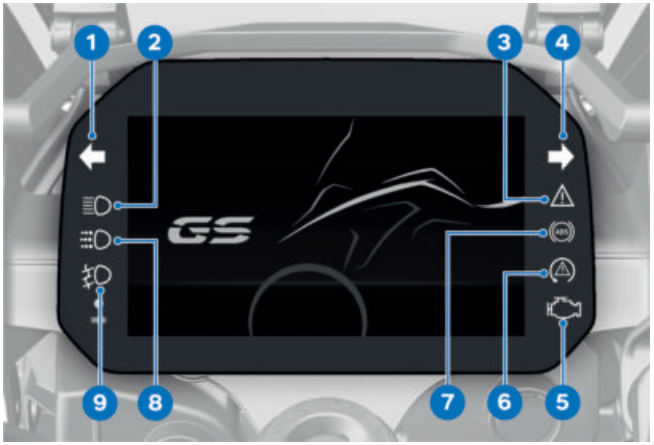
STATUS INDICATORS

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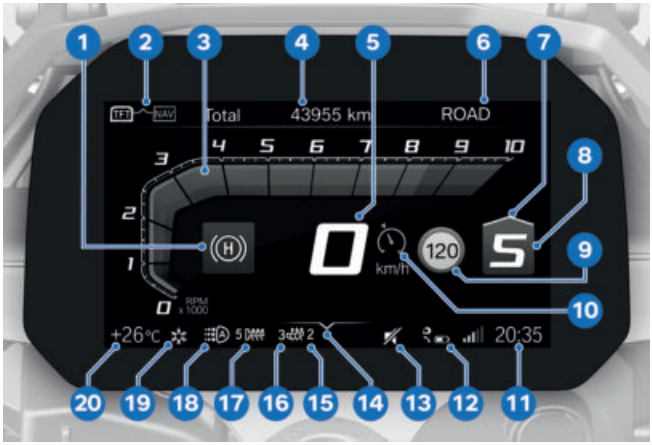
28 STATUS INDICATORS

INDICATOR AND WARNING LIGHTS



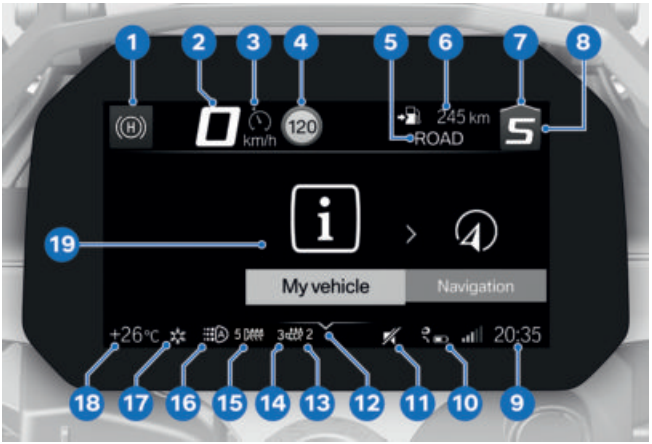
1 Turn indicators, left (➠ 77)
2 High-beam headlight (➠ 74)
3 General warning light (➠ 31)
4 Turn indicators, right (➠ 77)
5 Warning light, drive malfunction (➠ 47)
6 DTC (➠ 56)
7 ABS (➠ 55)
8 Daytime riding light (➠ 75)
9 Auxiliary headlights (➠ 75)

TFT DISPLAY IN PURE RIDE VIEW



1 Hill Start Control (➠ 59)
2 Change of operating focus (➠ 107)
3 Rev. counter (➠ 109)
4 Rider info. status line (➠ 107)
5 Speedometer
6 Riding mode (➠ 82)
7 Recommendation to upshift (➠ 110)
8 Gear indicator
9 Speed Limit Info (➠ 109)
10 Cruise control (➠ 87)
11 Clock (➠ 111)
12 Connection status (➠ 113)
13 Muting (➠ 110)
14 Operating help
15 Passenger seat heating (➠ 97)
16 Rider's seat heating (➠ 96)
17 Heated grips (➠ 95)
18 Automatic daytime riding light (➠ 76)
19 Outside temperature warning (➠ 39)
20 Ambient temperature

TFT DISPLAY IN MENU VIEW



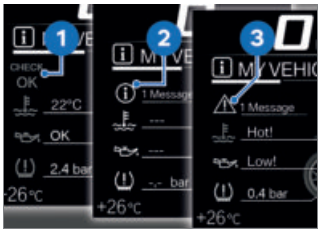
1 Hill Start Control (➠ 59)
2 Speedometer
3 Cruise control (➠ 87)
4 Speed Limit Info (➠ 109)
5 Riding mode (➠ 82)
6 Rider info. status line (➠ 107)
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15 Heated grips (➠ 95)
16 Automatic daytime riding light (➠ 76)
17 Outside temperature warning (➠ 39)
18 Ambient temperature
19 Menu section

WARNING INDICATORS

Mode of presentation

Warnings are indicated by the corresponding warning lights. Warnings are indicated by the 'General' warning light showing in combination with a dialogue in the TFT display. The 'General' warning light shows yellow or red, depending on the urgency of the warning.

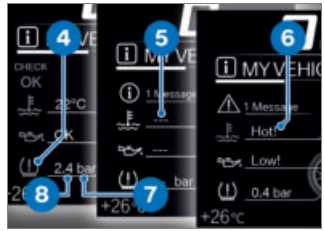
The status of the 'General' warning light matches the most urgent warning.
The possible warnings are listed on the next pages.



Check Control display

The messages differ in how they show on the display. Different colours and symbols are used depending on priority:

- Green CHECK OK **1**: No message, optimum values.
- White circle with small "i" **2**: Information.
- Yellow warning triangle **3**: Warning, value not ideal.
- Red warning triangle **3**: Warning, value critical



Values display

Symbols **4** differ in how they show on the display. The colours used differ and reflect the urgency of the message. Along with numerical values **8** with units **7**, texts **6** are displayed as well:

Colour of the symbol

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

–Red: (Hot!/High!) Current temperature or value is too high.
–White: (---) No valid value available. Dashes **5** are displayed instead of a numerical value.

The assessment of some values is only possible from a certain journey duration or speed. If a measured value is still not being displayed because the conditions for measurement have not been met, dashes are displayed instead as a placeholder. If there are no valid measured values, there will be no assessment in the form of a coloured symbol.



Check Control dialogue

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

–If there are two or more Check Control messages of equal priority, the messages keep changing in the order of their occurrence until they are acknowledged.
–If symbol **2** is actively displayed, it can be acknowledged by tilting the Multi-Controller to the left.
–Check Control messages are attached dynamically to the pages as additional tabs in the My vehicle menu (➠ 105). The message can be called up again as long as the fault persists.

Warnings, overview

Indicator and warning lights	Display text	Meaning
	 is displayed.	Outside temperature warning (➠ 39)
 lights up yellow.	 `Remote key not in range.`	Radio-operated key out of range (➠ 39)
 lights up yellow.	 `Keyless Ride failure`	Keyless Ride failed (➠ 40)
 lights up yellow.	 `Remote key battery weak.`	Replacing battery of radio-operated key (➠ 40)
	 is displayed in yellow.	Voltage of the vehicle electrical system too low (➠ 40)
	 `Vehicle voltage low.`	
 lights up yellow.	 is displayed in red.	Voltage of the vehicle electrical system critical (➠ 41)
	 `Vehicle voltage critical!`	
 flashes yellow.	 is displayed in red.	Charging voltage critical (➠ 42)
	 `Vehicle voltage critical!`	
 lights up yellow.	 The faulty bulb is displayed.	Bulb faulty (➠ 42)
 flashes yellow.	 The faulty bulb is displayed.	
 lights up yellow.	 `Light control failure!`	Light control failed (➠ 43)

Indicator and warning lights	Display text	Meaning
	Alarm system batt. capacity weak.	Anti-theft alarm battery weak (➠ 44)
	Alarm system battery empty.	Anti-theft alarm battery flat (➠ 44)
	Alarm system failure	DWA failed (➠ 44)
lights up yellow.	Engine oil level Check engine oil level.	Engine-oil level too low (➠ 45)
lights up yellow.	Engine temp. high!	Engine temperature high (➠ 45)
lights up red.	Engine overheating!	Engine overheated (➠ 46)
lights up.	Engine!	Drive malfunction (➠ 47)
flashes red.	Serious fault in the engine control!	Serious drive malfunction (➠ 47)
flashes.		
lights up yellow.	No communication with engine control.	Engine control failed (➠ 47)
shows.		
lights up yellow.	Fault in the engine control.	Engine in emergency-operation mode (➠ 48)

Indicator and warning lights	Display text	Meaning
 flashes red.	 Serious fault in the engine control!	Serious fault in engine control (➠ 48)
 lights up yellow.	 is displayed in yellow.	Tyre pressure close to limit of permitted tolerance (➠ 50)
	 Tyre pressure does not match setpoint	
 flashes red.	 is displayed in red.	Tyre pressure outside permitted tolerance (➠ 50)
	 Tyre pressure does not match setpoint	
	 Tyre press. control. Loss of pressure.	
	 "---"	Transmission fault (➠ 51)
 lights up yellow.	 "---"	Sensor faulty or system fault (➠ 52)
 lights up yellow.	 Tyre pressure check failure!	Tyre pressure monitoring (RDC) failed (➠ 52)
 lights up yellow.	 RDC sensor battery weak.	Battery for tyre pressure sensor weak (➠ 53)
	 Drop sensor faulty.	Drop sensor defective (➠ 53)
 lights up yellow.	 Emergency call system restricted.	Emergency call function restricted (➠ 53)

36 STATUS INDICATORS

Indicator and warning lights	Display text	Meaning
 lights up yellow.	 `Emergency call system error.`	Emergency call function failed (➠ 54)
 lights up yellow.	 `Side stand monitoring faulty.`	Side stand monitoring is faulty (➠ 54)
 flashes regularly.		ABS self-diagnosis not completed (➠ 54)
 lights up yellow.	 `Limited ABS availability!`	ABS fault (➠ 55)
 shows.		
 lights up yellow.	 `ABS failure!`	ABS failed (➠ 55)
 shows.		
 lights up yellow.	 `ABS Pro failure!`	ABS Pro failed (➠ 55)
 shows.		
 flashes irregularly.		ABS control at front wheel only (➠ 56)
 quick-flashes.		DTC intervention (➠ 56)
 slow-flashes.		DTC self-diagnosis not completed (➠ 56)
 shows.	 `Off!`	DTC switched off (➠ 57)

Indicator and warning lights	Display text	Meaning
	 Traction control deactivated.	DTC switched off (➠ 57)
 lights up yellow.	 Traction control limited!	DTC restricted (➠ 57)
 shows.		
 lights up yellow.	 Traction control failure!	DTC fault (➠ 58)
 shows.		
 lights up yellow.	 Spring strut adjustment faulty!	D-ESA fault (➠ 58)
	 Tank reserve level reached.	Fuel down to reserve (➠ 59)
	 shows green.	Hill Start Control active (➠ 59)
	 flashes yellow.	Hill Start Control automatically deactivated (➠ 59)
	 is displayed.	Hill Start Control cannot be activated (➠ 59)
	HSC not available. Engine not running.	
	 The gear indicator flashes.	Gear not trained (➠ 60)
 flashes green.		Hazard warning lights system is switched on (➠ 60)
 flashes green.		

Indicator and warning lights	Display text	Meaning
	 is displayed in white.	Service due (➠ 61)
	`Service due!`	
 lights up yellow.	 is displayed in yellow.	Service-due date has passed (➠ 61)
	`Service overdue!`	

Ambient temperature

The outside temperature is displayed in the status line of the TFT display.

When the vehicle is at a standstill, the heat of the electrical machine can falsify the ambient-temperature reading. If the heat of the electrical machine is affecting it too much, dashes are temporarily shown in place of the value.

There is a risk of black ice if the ambient temperature falls below the limit value of approx. 3 °C.

The first time the temperature drops below this value, the ambient-temperature reading and the ice crystal symbol flash in the status line of the TFT display.

Outside temperature warning

is displayed.

Possible cause:

The air temperature measured at the vehicle is lower than:
approx. 3 °C

WARNING

Risk of black ice forming even when temperature is above approx. 3 °C

Risk of accident

- Always take extra care when temperatures are low; remember that there is particular danger of black ice forming on bridges and where the road is in shade.

- Ride carefully and think well ahead.

Radio-operated key out of range

–with Keyless Ride OE

lights up yellow.

`Remote key not in range. Not possible to switch on ignition again.`

Possible cause:

Communication between R/C key and engine electronics is disrupted.

- Check the battery in the radio-operated key.

–with Keyless Ride OE

- Replace the battery of the radio-operated key. (➠ 69)

- Use the reserve key to continue your journey.

–with Keyless Ride OE

- Battery of the radio-operated key is empty or loss of the radio-operated key. (➠ 68)
- If a check control dialogue box appears during the journey, remain calm. You can continue your journey; the engine will not switch off.
- Have the defective radio-operated key replaced by an authorised BMW Motorrad dealer.

Keyless Ride failed

–with Keyless Ride OE

 lights up yellow.

 `Keyless Ride failure Do not stop the engine. It may not be poss. to restart the engine.`

Possible cause:

The Keyless Ride control unit has diagnosed a communication fault.

- Do not switch off the engine. Proceed as directly as possible to an authorised workshop, preferably an authorised BMW Motorrad retailer.

» Engine start with Keyless Ride no longer possible.

» DWA can no longer be activated.

Replacing battery of radio-operated key

–with Keyless Ride OE

 lights up yellow.

 `Remote key battery weak. Function limited. Change battery.`

Possible cause:

- The integral battery in the radio-operated key has lost a significant proportion of its original capacity. There is no assurance of how long the radio-operated key can remain operational.
- Replace the battery of the radio-operated key. (➠ 69)

Voltage of the vehicle electrical system too low

 is displayed in yellow.

 `Vehicle voltage low. Switch off unnecessary consumers.`

The voltage of the vehicle electrical system is too low. If you continue to ride the motorcycle the on-board electronics will drain the battery.

Possible cause:

Consumers with high power consumption (such as heated body warmers) are in operation, too many consumers are in operation at one time, or battery faulty.

- Switch off non-essential consumers or disconnect them from the vehicle's electrical system.
- If the fault persists or occurs without consumers connected, have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad retailer.

Voltage of the vehicle electrical system critical


lights up yellow.


is displayed in red.


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

WARNING

Failure of the vehicle systems

Risk of accident

- Do not continue your journey.

The voltage of the vehicle electrical system is critical. If you continue to ride the motorcycle the on-board electronics will drain the battery.

Possible cause:

Consumers with high power consumption (such as heated body warmers) are in operation, too many consumers are in operation at one time, or battery faulty.

- Switch off non-essential consumers or disconnect them from the vehicle's electrical system.
- If the fault persists or occurs without consumers connected, have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad retailer.

Charging voltage critical

 flashes yellow.

 is displayed in red.

 `Vehicle voltage critical! Battery is not being charged. Check battery status.`

WARNING

Failure of the vehicle systems

Risk of accident

- Do not continue your journey.

Battery is not being charged. If you continue to ride the motorcycle the on-board electronics will drain the battery.

Possible cause:

The alternator or alternator drive is faulty, battery is faulty or the fuse for the alternator regulator has blown.

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

Bulb faulty

 lights up yellow.

 The faulty bulb is displayed:

 `High beam faulty!`

 `Front left turn indicator faulty!` or `Front right turn indicator faulty!`

 `Low-beam headlight faulty!`

 `Front side light faulty!`

–with daytime riding light OE

 `Daytime riding light faulty!◁`

–with additional headlight OE

 `Left additional headlight faulty!` or `Right additional headlight faulty!◁`

 `Tail light faulty!`

 `Brake light faulty!`

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


Number plate light faulty!

–Have it checked by a specialist workshop.


flashes yellow.

–with adaptive head light OE


The faulty bulb is displayed:


Active headlight faulty.◁

WARNING

Vehicle overlooked in traffic due to failure of the lights on the vehicle

Safety risk

- Always replace a faulty bulb at the earliest possible opportunity. Consult a specialist workshop, preferably an authorised BMW Motorrad Retailer.

Possible cause:

One or more bulbs faulty.

- Visually inspect to ascertain which bulb is defective.
- Have LED light sources replaced as complete units; consult a specialist workshop, preferably an authorised BMW Motorrad retailer.

Light control failed


lights up yellow.


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

WARNING

Vehicle overlooked in traffic on account of failure of the vehicle lighting

Safety risk

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

The vehicle lighting has partially or completely failed.

Possible cause:

Light control has diagnosed a communication fault.

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

Anti-theft alarm battery weak

–with anti-theft alarm (DWA) OE

Alarm system batt. capacity weak. No restrictions. Make an appointment at a specialist workshop.

This error message shows briefly only after the Pre-Ride-Check completes.

Possible cause:

The integral battery in the anti-theft alarm has lost a significant proportion of its original capacity. There is no assurance of how long the anti-theft alarm can remain operational if the vehicle's battery is disconnected.

- Seek the advice of a specialist workshop, preferably an authorised BMW Motorrad dealer.

Anti-theft alarm battery flat

–with anti-theft alarm (DWA) OE

Alarm system battery empty. No independent alarm. Make an appointment at a specialist workshop.

This error message shows briefly only after the Pre-Ride-Check completes.

Possible cause:

The integral battery in the anti-theft alarm has lost its entire original capacity. There is no assurance that the anti-theft alarm will be operational if the vehicle's battery is disconnected.

- Seek the advice of a specialist workshop, preferably an authorised BMW Motorrad dealer.

DWA failed

–with anti-theft alarm (DWA) OE

Alarm system failure Have it checked by a specialist workshop.

Possible cause:

The DWA control unit has diagnosed a communication fault.

- Consult a specialist workshop, preferably an authorised BMW Motorrad retailer.

» DWA can no longer be activated or deactivated.

» False alarm possible.

Electronic oil-level check

The electronic oil-level check assesses the oil level in the engine as OK or Low!

The following preconditions have to be satisfied for electronic oil-level checking, and several measurements might have to be taken:

– Rider is sitting on the vehicle and vehicle has just been ridden at a speed of at least min 10 km/h.
– Engine idling for at least 20 seconds.
– Engine is at operating temperature.
– Vehicle is standing upright on a smooth, level surface.
– Side stand is retracted and vehicle is not propped on its centre stand.
– The spring strut is appropriately set for the load status, or D-ESA is in Auto load mode.

If measurement is incomplete or if these conditions are not met, the oil level cannot be judged by the system. Dashes (---) appear on the display instead of a reading.

Engine-oil level too low

 lights up yellow.

 Engine oil level Check engine oil level.

Possible cause:

The electronic oil-level sensor has registered a low oil level. If the vehicle is not standing upright on a smooth, level surface, the message might appear even though the oil level is correct. The next time you stop for fuel:

- Check the engine oil level. (➠ 191)

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

- Topping up the engine oil. (➠ 193)

When the oil level in the sight glass is correct:

- Check whether the preconditions for the electronic oil-level check are met.

If the message appears repeatedly, even though the oil level is slightly below the **MAX** mark:

- Consult a specialist workshop, preferably an authorised BMW Motorrad retailer.

Engine temperature high

 lights up yellow.

 Engine temp. high! Continue riding with restriction to allow cooling.

ATTENTION

Riding with overheated engine

Engine damage

- Compliance with the information set out below is essential.

Possible cause:

The coolant level is too low.

- Check the coolant level. (➠ 198)

If the coolant level is too low:

- Leave the engine to cool down.
- Topping up coolant (➠ 199).
- Have the cooling system checked by a specialist workshop, preferably by a BMW Motorrad partner.

Possible cause:

The coolant temperature is too high.

- If possible, ride in the part-load range to cool down the engine.

If the coolant temperature is frequently too high:

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

Engine overheated

 lights up red.

 Engine overheating! Stop when it is safe to do so and switch off the engine.

ATTENTION

Riding with overheated engine

Engine damage

- Compliance with the information set out below is essential.

Possible cause:

The coolant level is too low.

- Check the coolant level. (➠ 198)

If the coolant level is too low:

- Leave the engine to cool down.
- Topping up coolant (➠ 199).
- Have the cooling system checked by a specialist workshop, preferably by a BMW Motorrad partner.

Possible cause:

Engine is overheated.

- Carefully bring the vehicle to a stop, switch off the engine and wait until the engine has cooled down.

- If engine overheating is a frequent occurrence, have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad retailer.

Drive malfunction

 lights up.

 `Engine! Have it checked by a specialist workshop.`

Possible cause:

The engine control unit has diagnosed a fault which affects the pollutant emissions.

- Have the fault rectified by a specialist workshop, preferably an authorised BMW Motorrad dealer.

» You can continue riding; pollutant emissions are higher than the threshold values.

Serious drive malfunction

 flashes red.

 flashes.

 `Serious fault in the engine control! Riding at mod. speed pos. Damage possible. Have checked by workshop.`

Possible cause:

The engine control unit has diagnosed a fault that can lead to damage to the exhaust system.

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

» It is possible to continue to ride but not recommended.

Engine control failed

 lights up yellow.

 shows.

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

Possible cause:

Communication with the engine control unit has failed.

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

Engine in emergency-operation mode

 lights up yellow.

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

WARNING

Unusual ride characteristics when engine running in emergency-operation mode
Risk of accident
- Avoid accelerating sharply and overtaking.

Possible cause:

The engine control unit has diagnosed a fault which impairs the engine performance or throttle response. The engine is in emergency-operation mode. In exceptional cases, the engine stops and refuses to start.

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

» It is possible to continue riding, however the engine performance and engine speed range may be impaired and not function as normal.

Serious fault in engine control

 flashes red.

 `Serious fault in the engine control! Riding at mod. speed pos. Damage possible. Have checked by workshop.`

WARNING

Engine damage when running in emergency-operation mode
Risk of accident
- Ride slowly, avoid accelerating sharply and overtaking.
- If possible, have the vehicle picked up and have the fault rectified by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

Possible cause:

The engine control unit has diagnosed a fault which may cause severe secondary faults. The engine is in emergency-operation mode.

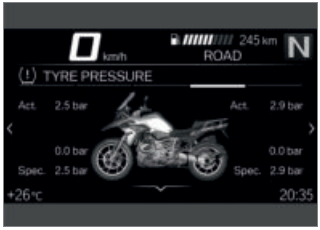
- It is possible to continue to ride but not recommended.
- Avoid high load and rpm ranges if possible.

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

Tyre pressure

–with tyre pressure control (RDC) OE

In addition to the MY VEHICLE menu screen and the Check Control messages, there is also the TYRE PRESSURE screen for showing the tyre pressures:



The values on the left are for the front wheel; those on the right are for the rear wheel. Actual and specified tyre pressures and the difference between them are displayed for each wheel.
Immediately after the ignition is switched on, only dashes are displayed. The sensors do not start transmitting tyre pressure signals until the first time the vehicle accelerates to more than the minimum speed stated below:

RDC sensor is not active
min 30 km/h (The RDC sensor does not transmit its signal to the vehicle until a certain minimum speed has been reached.)
The tyre pressures are shown in the TFT display as temperature compensated and always refer to the following tyre air temperature:
20 °C

If the tyre symbol appears as well, showing yellow or red, this is a warning. The pressure difference is highlighted with an exclamation point in the same colour.

If the value in question is close to the limit of the permissible tolerance range, the reading is accompanied by the 'General' warning light showing yellow.

The 'General' warning light flashes red if the tyre pressure registered by the

sensor is outside the permissible tolerance range.

For further information about the BMW Motorrad RDC, see the section entitled "Engineering details" from page (➠ 180) onward.

Tyre pressure close to limit of permitted tolerance

 lights up yellow.

 is displayed in yellow.

 `Tyre pressure does not match setpoint Check tyre pressure.`

Possible cause:

Measured tyre pressure is close to the limit of permitted tolerance.

- Correct tyre pressure.
- Before adjusting tyre pressure, read the information on temperature compensation and adjusting pressure in the section entitled "Engineering details":

–with tyre pressure control (RDC) OE

» Temperature compensation (➠ 181)◁

–with tyre pressure control (RDC) OE

» Pressure adaptation (➠ 181)◁

» Find the correct tyre pressures in the following places:

–Back cover of the rider's manual

–Instrument cluster in the `TYRE PRESSURE` view

–Sign under the seat

Tyre pressure outside permitted tolerance

 flashes red.

 is displayed in red.

 `Tyre pressure does not match setpoint Stop immediately! Check tyre pressure.`

 `Tyre press. control. Loss of pressure. Stop immediately! Check tyre pressure.`

WARNING

Tyre pressure outside the permitted tolerance.
Risk of accident, degradation of the vehicle's driving characteristics.
- Adapt your style of riding accordingly.

Possible cause:

Measured tyre pressure is outside permitted tolerance.
- Check the tyre for damage and to ascertain whether the vehicle can be ridden with the tyre in its present condition.

If the vehicle can be ridden with the tyre in its present condition:
- Correct the tyre pressure at the earliest possible opportunity.
- Before adjusting tyre pressure, read the information on temperature compensation and adjusting pressure in the section entitled "Engineering details":

–with tyre pressure control (RDC) OE

» Temperature compensation (➠ 181)◁

–with tyre pressure control (RDC) OE

» Pressure adaptation (➠ 181)◁

» Find the correct tyre pressures in the following places:

–Back cover of the rider's manual

–Instrument cluster in the TYRE PRESSURE view

–Sign under the seat

- Have the tyre checked for damage by a specialist workshop, preferably an authorised BMW Motorrad retailer.

The RDC warning messages can be deactivated for off-roading.

If you are unsure whether the vehicle can be ridden with the tyre in its present condition:
- Do not continue your journey.
- Notify the breakdown service.

Transmission fault

"– – –"

Possible cause:

The vehicle has not reached the minimum speed (➠ 180).

RDC sensor is not active
min 30 km/h (The RDC sensor does not transmit its signal to the vehicle until a certain minimum speed has been reached.)

- Observe the RDC display at higher speeds.

Assume that a permanent fault has not occurred unless the 'General' warning light comes on to accompany the symptoms.

Under these circumstances:

- Have the fault rectified by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Possible cause:

The radio link to the RDC sensors is faulty. Radio systems are located in the surrounding area which are interfering with the transmission between the RDC control unit and the sensors.

- Observe the RDC displays in other surrounding areas.

Assume that a permanent fault has not occurred unless the 'General' warning light comes on to accompany the symptoms.

Under these circumstances:

- Have the fault rectified by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Sensor faulty or system fault

lights up yellow.

"---"

Possible cause:

Vehicle is fitted with wheels not equipped with RDC sensors.

- Fit wheels and tyres equipped with RDC sensors.

Possible cause:

1 or 2 RDC sensors have failed or a system error has occurred.

- Have the fault rectified by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Tyre pressure monitoring (RDC) failed

lights up yellow.

Tyre pressure check failure! Function limited. Have it checked by a specialist workshop.

Possible cause:

The tyre pressure control (RDC) control unit has diagnosed a communication fault.

- Consult a specialist workshop, preferably an authorised BMW Motorrad retailer.

» Tyre pressure warnings not available.

Battery for tyre pressure sensor weak

 lights up yellow.

 `RDC sensor battery weak. Function limited. Have it checked by a specialist workshop.`

 This error message shows briefly only after the Pre-Ride-Check completes.

Possible cause:

The integral battery in the tyre-pressure sensor has lost a significant proportion of its original capacity. There is no assurance of how long the tyre pressure control system can remain operational.

- Seek the advice of a specialist workshop, preferably an authorised BMW Motorrad dealer.

Drop sensor defective

 `Drop sensor faulty. Have it checked by a specialist workshop.`

Possible cause:

The drop sensor is not available.

- Seek the advice of a specialist workshop, preferably an authorised BMW Motorrad dealer.

Emergency call function restricted

–with intelligent emergency call[OE]

 lights up yellow.

 `Emergency call system restricted. If this occurs again, have the vehicle checked by a specialist workshop.`

Possible cause:

The emergency call cannot be cannot be made automatically or via BMW.

- Observe information on operating the intelligent emergency call from page (➠ 71).
- Seek the advice of a specialist workshop, preferably an authorised BMW Motorrad dealer.

Emergency call function failed

–with intelligent emergency call OE

 lights up yellow.

 Emergency call system error. Make an appointment at a specialist workshop.

Possible cause:

The control unit of the emergency call system has diagnosed a fault. The emergency call function has failed.

- Bear in mind that an emergency call cannot be made.
- Consult a specialist workshop, preferably an authorised BMW Motorrad retailer.

Side stand monitoring is faulty

 lights up yellow.

 Side stand monitoring faulty. Onward journey possible. Engine will stop if stationary! Have checked by workshop.

Possible cause:

 Side-stand switch or wiring damaged
The engine will switch off when speed drops below the minimum threshold. You cannot resume your journey.
min 5 km/h

- Consult a specialist workshop, preferably an authorised BMW Motorrad retailer.

ABS self-diagnosis not completed

 flashes regularly.

Possible cause:

 ABS self-diagnosis not completed
The ABS function is not available, because self-diagnosis did not complete. (The motorcycle has to reach a defined minimum speed for the wheel speed sensors to be checked: 5 km/h)

- Pull away slowly. Bear in mind that the ABS function is not available until self-diagnosis has completed.

ABS fault

 lights up yellow.

 shows.

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

Possible cause:

The ABS control unit has detected a fault. The partially integral function and the Dynamic Brake Control function have failed. The ABS function is available, subject to restrictions.

- You can continue to ride. Bear in mind the more detailed information on certain situations that can lead to an ABS fault message (➠ 170).
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad retailer.

ABS failed

 lights up yellow.

 shows.

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

Possible cause:

The ABS control unit has detected a fault. The ABS function is not available.

- You can continue to ride. Bear in mind the more detailed information on certain situations that can lead to an ABS fault message (➠ 170).
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad retailer.

ABS Pro failed

 lights up yellow.

 shows.

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

Possible cause:
Monitoring of the ABS Pro function has detected a fault. The ABS Pro function is not available. The ABS function is still available. ABS provides support only for braking in straight-ahead driving.
- You can continue to ride. Bear in mind the more detailed information on certain situations that can lead to an ABS Pro fault message (➠ 170).
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad retailer.

ABS control at front wheel only

–with riding modes Pro[OE]

 flashes irregularly.

Possible cause:
ABS control for the rear wheel is switched off in the currently selected riding mode. The rear wheel brake can lock the rear wheel.
- Check the settings of the riding mode.
- For more information on setting up the riding modes, see the section entitled "Engineering details" (➠ 175).

DTC intervention

 quick-flashes.

Possible cause:
The DTC has detected a degree of instability at the rear wheel and has intervened to reduce torque.
The indicator and warning light flashes longer than the duration of the DTC. This affords the rider visual feedback on control intervention even after the critical situation has been dealt with.
- You can continue to ride. Ride carefully and think well ahead.

DTC self-diagnosis not completed

 slow-flashes.

Possible cause:

 DTC self-diagnosis not completed
The DTC function is not available, because self-diagnosis did not complete. (The motorcycle has to reach a defined minimum speed with the engine running for the wheel-speed sensors to be checked: min 5 km/h)

- Pull away slowly. Bear in mind that the DTC function is not available until self-diagnosis has completed.

DTC switched off

 shows.

 `Off!`

 `Traction control deactivated.`

Possible cause:

The rider has switched off the DTC system.

- Switch on DTC. (➠ 79)

DTC restricted

 lights up yellow.

 shows.

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

Possible cause:

The DTC control unit has detected a fault.

ATTENTION

Damaged components

Damage to sensors, for example, which causes malfunctions

- Do not transport any objects underneath the driver or passenger seat.
- Secure the toolkit.

- Do not damage the angular rate sensor.
- Bear in mind that the DTC function is restricted.
- You can continue to ride. Bear in mind the more detailed information on situations that can lead to a DTC fault (➠ 172).
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad retailer.

DTC fault

 lights up yellow.

 shows.

 `Traction control failure! Onward journey possible. Ride carefully to next specialist workshop.`

Possible cause:

The DTC control unit has detected a fault.

ATTENTION

Damaged components

Damage to sensors, for example, which causes malfunctions

- Do not transport any objects underneath the driver or passenger seat.
- Secure the toolkit.

- Do not damage the angular rate sensor.
- Bear in mind that the DTC function is not available or the functionality is subject to certain restrictions.
- You can continue to ride. Bear in mind the more detailed information on situations that can lead to a DTC fault (➠ 172).
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad dealer.

D-ESA fault

–with Dynamic ESA[OE]

 lights up yellow.

 `Spring strut adjustment faulty! Onward journey possible. Ride carefully to next specialist workshop.`

Possible cause:

The D-ESA control unit has detected a fault. The damping and/or spring adjuster may be the cause. In Auto the cause may also be a fault in the riding position equaliser. In this condition, the motorcycle may have too much damping and is uncomfortable to drive, especially on roads in poor condition. Alternatively, the spring preload may be incorrectly adjusted.

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

Fuel down to reserve

Tank reserve level reached. Ride to the next filling station.

WARNING

Irregular engine operation or engine shutdown due to lack of fuel

Risk of accident, damage to catalytic converter

- Do not run the fuel tank dry.

Possible cause:

The fuel tank contains no more than the reserve quantity of fuel.

Reserve fuel
approx. 4 l

- Refuel. (➠ 159)

Hill Start Control active

shows green.

Possible cause:

The driver has activated Hill Start Control (➠ 183).

- Switch off Hill Start Control.
- Operate Hill Start Control. (➠ 90)

Hill Start Control automatically deactivated

flashes yellow.

Possible cause:

Hill Start Control has been automatically deactivated.

- Side stand has been folded out.

» Hill Start Control is deactivated when the side stand is folded out.

- Engine has been switched off.

» Hill Start Control is deactivated when the engine is switched off.

- Operate Hill Start Control. (➠ 90)

Hill Start Control cannot be activated

is displayed.

HSC not available. Engine not running.

Possible cause:

Hill Start Control cannot be activated.

- Retract the side stand.

» Hill Start Control functions only when the side stands are folded in.

- Start the engine.

» Hill Start Control functions only when the engine is running.

Gear not trained

–with shift assistant Pro OE


The gear indicator flashes. The Pro shift assistant is not available.

Possible cause:

–with shift assistant Pro OE

The gearbox sensor is not fully trained.

- Select neutral N and allow the engine to idle for at least 10 seconds to teach the neutral position.
- Use clutch control to engage each gear in turn and ride for a minimum of 10 seconds in each gear.

» The gear indicator stops flashing when the gearbox sensor has been trained successfully.

–When the gearbox sensor is fully trained, the Gear Shift Assistant Pro functions as described (➠ 182).

- If teaching is not successful, have the fault rectified by a specialist workshop, preferably an authorised BMW Motorrad retailer.

Hazard warning lights system is switched on


flashes green.


flashes green.

Possible cause:

The driver has switched on the hazard warning lights system.

- Operate the hazard warning flashers. (➠ 77)

Service-due indicator


If service is overdue, the due date or the odometer reading at which service was due is accompanied by the general warning light showing yellow.

If the service is overdue, a yellow Check Control message is displayed. Exclamation marks also draw your attention to the displays for service, service appointment and countdown distance in the MY VEHICLE and SERVICE REQUIREMENTS menu screens.


If the service-due indicator appears more than a month before the service date, the current date has to be corrected. This situation can occur if the battery was disconnected.

Service due

 is displayed in white.

Service due! Have service performed by a specialist workshop.

Possible cause:

Service is due because of the driving performance or the date.

- Have your motorcycle serviced regularly by a specialist workshop, preferably by an authorised BMW Motorrad retailer.

» The operational and road safety of the motorcycle remain intact.

» The motorcycle's value is maintained as best as possible.

Service-due date has passed

 lights up yellow.

 is displayed in yellow.

Service overdue! Have service performed by a specialist workshop.

Possible cause:

Service is overdue because of the driving performance or the date.

- Have your motorcycle serviced regularly by a specialist workshop, preferably by an authorised BMW Motorrad retailer.

» The operational and road safety of the motorcycle remain intact.

» The motorcycle's value is maintained as best as possible.

OPERATION

04

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IGNITION SWITCH/STEERING LOCK

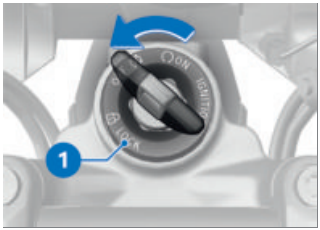
Keys

You receive 2 vehicle keys.
If a key is lost or mislaid, consult the notes on the electronic immobiliser (EWS) (➠ 65).
Ignition switch/steering lock, fuel filler cap lock and seat lock are all operated with the same ignition key.

If you wish you can arrange to have the cases and the topcase fitted with locks that can be opened with the ignition key as well. Consult a specialist workshop, preferably an authorised BMW Motorrad retailer.

Engaging steering lock

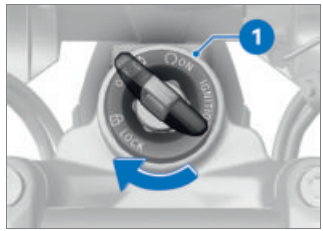
- Turn the handlebars all the way to the left.



- Turn the vehicle key to position **1**, while moving the handlebars slightly.

» Ignition, lights and all function circuits switched off.
» Handlebars are locked.
» Vehicle key can be removed.

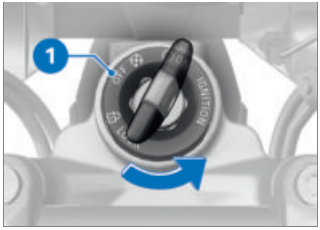
Switching on ignition



- Insert the vehicle key into the ignition switch and turn it to position **1**.

» Side lights and all function circuits are switched on.
» Pre-Ride-Check is performed. (➠ 149)
» ABS self-diagnosis is in progress. (➠ 149)
» DTC self-diagnosis is in progress. (➠ 150)

Switching off ignition



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

» When the ignition is switched off, the instrument cluster remains switched on for a short time and displays any existing fault messages.

» Handlebars not locked.

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

» The battery can be recharged via the socket.

» Vehicle key can be removed.

–with daytime riding light OE

- The daytime riding light goes out soon after the ignition is switched off.◁

–with additional headlight OE

- The auxiliary headlights go out soon after the ignition is switched off.◁

Electronic immobiliser (EWS)

The on-board electronics access the data saved in the ignition key via a ring aerial in the ignition lock. The ignition is not enabled for starting until the engine control unit has recognised this ignition key as "authorised" for your motorcycle.

A second ignition key attached to the same ring as the ignition key used to start the engine could "irritate" the electronics, in which case the enabling signal for starting is not issued.

Always keep the ignition keys separate from each other.

If you lose your key, you can have it barred by your authorised BMW Motorrad retailer. If you wish to do this, you will need to bring all other keys for the motorcycle with you. The engine cannot be started by a barred ignition key, but an ignition key that has been barred can subsequently be reactivated.

You can obtain extra keys only through an authorised BMW Motorrad retailer. The ignition keys are part of an integrated security system,

so the retailer is under an obligation to check the legitimacy of all applications for replacement/extra keys.

IGNITION WITH KEYLESS RIDE

–with Keyless Ride OE

Keys

The telltale light for the radio-operated key flashes while the search for the radio-operated key is in progress.
The light goes out as soon as the radio-operated key or the emergency key is found.
The light goes out briefly if the search times out without the radio-operated key or the emergency key being found.

You receive one radio-operated key and one spare key. If a key is lost or mislaid, consult the notes on the electronic immobiliser (EWS) (➠ 65).
Ignition, fuel filler cap and anti-theft alarm system all work with the radio-operated key.
Seat lock, topcase and cases can be locked and unlocked manually.

The vehicle cannot be started if the radio control key is not within range (e.g. key inside one of the cases or the topcase).
If the radio-operated key remains out of range the ignition is switched off after about 90 seconds to protect the battery.
It is advisable to keep the radio-operated key on your person (e.g. in a jacket pocket) and to have the emergency key with you as an alternative.

Range of the Keyless Ride radio-operated key
–with Keyless Ride OE
approx. 1 m◁

Engaging steering lock

Requirement

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



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

» The steering lock engages with an audible click.

» Ignition, lights and all function circuits switched off.
- Short-press button **1** to disengage the steering lock.

Switching on ignition
Requirement
Radio-operated key is within range.



- There are **two** ways of activating the ignition.

Version 1:
- Short-press button **1**.

» Side lights and all function circuits are switched on.
– with daytime riding light OE
» Daytime riding light is switched on.◁
– with additional headlight OE
» Auxiliary headlights are switched on.◁
» Pre-Ride-Check is performed. (➠ 149)
» ABS self-diagnosis is in progress. (➠ 149)

Version 2:
- Steering lock is engaged; press and hold down button **1**.

» The steering lock disengages.
» Side lights and all function circuits switched on.
– with daytime riding light OE
» Daytime riding light is switched on.◁
– with additional headlight OE
» Auxiliary headlights are switched on.◁
» Pre-Ride-Check is performed. (➠ 149)
» ABS self-diagnosis is in progress. (➠ 149)

Switching off ignition
Requirement
Radio-operated key is within range.



- There are **two** ways of deactivating the ignition.

Version 1:

- Short-press button **1**.

» Light is switched off.

» Handlebars (steering lock) are not locked.

Version 2:

- Turn the handlebars all the way to the left.
- Press and hold down button **1**.

» Light is switched off.

» The steering lock engages.

Electronic immobiliser EWS

The on-board electronics access the data saved in the radio-operated key via a ring aerial in the R/C ignition lock. The ignition is not enabled for starting until the engine control unit has recognised the radio-operated key as "authorised" for your motorcycle.

A second radio-operated key attached to the same ring as the radio-operated key used to start the engine could "irritate" the electronics, in which case the enabling signal for starting is not issued. Always keep the radio-operated keys separate from each other.

If you lose a radio-operated key, you can have it barred by your authorised BMW Motorrad retailer. If you wish to do this, you will need to bring all other keys for the motorcycle with you.

The engine cannot be started by a barred radio-operated key, but a radio-operated key that has been barred can subsequently be reactivated.

You can obtain extra keys only through an authorised BMW Motorrad retailer. The radio-operated keys are part of an integrated security system, so the retailer is under an obligation to check the legitimacy of all applications for replacement/extra keys.

Battery of the radio-operated key is empty or loss of the radio-operated key



- If a key is lost or mislaid, consult the notes on the electronic immobiliser (**EWS**).

- If you happen to lose or mislay the radio-operated key while on a journey, you can start the vehicle with the spare key.
- If the battery of the radio-operated key is empty, the engine can be started by touching the radio-operated key against the rear-wheel cover.
- Hold spare key **1** or radio-operated key with empty battery **2** against the rear wheel cover at the location of aerial **3**.

The spare key or the radio-operated key with the empty battery must be **in contact with** the rear-wheel cover.

Time during which the engine has to be started. The unlocking procedure has to be repeated if this time is allowed to expire.	
30 s	

» Pre-Ride-Check is performed.
– Radio-operated key has been recognised.
– Engine can be started.
- Start the engine. (➠ 148)

Replacing battery of radio-operated key

If the radio-operated key does not react when you short-press or long-press a button:

- Battery of the radio-operated key is not at full capacity.

`Remote key battery weak. Function limited. Change battery.`

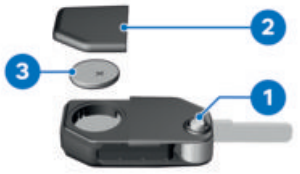
DANGER

Swallowing a battery

Risk of injury or death

- An ignition key contains a button cell as its battery. Batteries or button cells, if swallowed, can cause serious or fatal injury within two hours, for example resulting from internal burns or caustic action.
- Keep ignition keys and batteries out of reach of children.
- If there is any suspicion that a battery or button cell has been swallowed or is inside a part of the body, seek medical assistance immediately.

- Change the battery.



- Press button **1**.
» Key bit flips out.
- Push battery cover **2** up.
- Remove battery **3**.
- Dispose of the old battery in accordance with all applicable laws and regulations; do not attempt to dispose of batteries as domestic waste.

ATTENTION

Unsuitable or incorrectly inserted batteries
Component damage
- Use a battery compliant with the manufacturer's specifications.
- When inserting the battery, always make sure polarity is correct.

- Insert the new battery with the positive terminal up.

Battery type
For Keyless Ride radio-operated key
CR 2032

- Install battery cover **2**.
» Indicator light in the instrument cluster flashes.
» The radio-operated key is again ready for use.

EMERGENCY-OFF SWITCH (KILL SWITCH)



1 Emergency-off switch (kill switch)

WARNING

Operation of the kill switch while riding
Risk of fall due to rear wheel locking
- Do not operate the kill switch when riding.

The emergency off switch is a kill switch for switching off the engine quickly and easily.



A Engine switched off
B Normal operating position (run)

INTELLIGENT EMERGENCY CALL

–with intelligent emergency call OE

Emergency call via BMW

Press the SOS button in an emergency only.
The emergency call is not able to be ensured because of technical reasons due to unfavourable conditions, e.g. in areas where there is no mobile phone reception.
During an emergency call, the location of the vehicle, the choice of language and, if applicable, accident-related data are transmitted to BMW (➠ 11). Under unfavourable conditions, data transfer can be restricted or delayed. This can lead to delayed processing of the emergency call.
Even if an emergency call using BMW is not possible, the system may make an emergency call to a public emergency call number. This depends on the respective mobile phone network and the national regulations.

Language for emergency call

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

The language for the emergency call can only be changed by the BMW Motorrad partner. The language assigned to the vehicle differs from the display languages that can be selected by the rider in the TFT display.

Manual emergency call
Requirement

An emergency has occurred.
The vehicle is at a standstill.
The ignition is switched on.



- Open cover **1**.
- Short-press SOS button **2**.



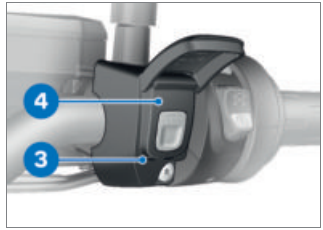
The connection was established.



The time until transmission of the emergency call is displayed. During that time, it is possible to cancel the emergency call.

- Operate the emergency-off switch to stop the engine.
- Remove helmet.

» After expiry of the timer, a voice contact to the BMW Call Center is established.



- Provide information to the emergency services using the microphone **3** and speaker **4**.

Automatic emergency call

The intelligent emergency call is active after the ignition is switched on and reacts if a fall or crash occurs.

Emergency call in the event of a light fall

- A minor fall or a crash is detected.

» An acoustic signal is sounded.



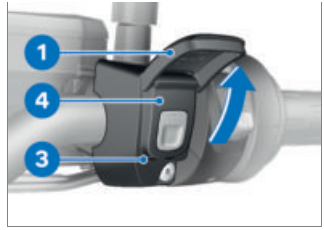
The time until transmission of the emergency call is displayed. During that time, it is possible to cancel the emergency call.

- If possible, remove helmet and stop engine.

» A voice contact connection to the BMW Call Center is established.



The connection was established.



- Open cover **1**.
- Provide information to the emergency services using the microphone **3** and speaker **4**.

Emergency call in the event of a severe fall

- A severe fall or a crash is detected.

» The emergency call is placed automatically without delay.

LIGHTING

Low-beam headlight and sidelights

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

The side lights place a strain on the battery; leave the ignition switched on for a limited time only.

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

–with daytime riding light[OE]
In daytime the daytime riding light can be switched on as an alternative to the low-beam headlight.

High-beam headlight and headlight flasher

- Switch on the ignition. (➠ 64)



- Push switch **1** forward to switch on the high-beam headlight.
- Pull switch **1** back to operate the headlight flasher.

Headlight courtesy delay feature

- Switch off the ignition.



- Immediately after switching off the ignition, pull switch **1** back and hold it in that position until the headlight courtesy delay feature comes on.

» The vehicle's lights come on for one minute and then switch off automatically.

–This can be used to light up the path to the house door after the vehicle has been parked, for example.

Parking lights

- Switch off the ignition. (➠ 65)



- Immediately after switching off the ignition, push but-

ton **1** to the left and hold it in that position until the parking lights come on.
- Switch the ignition on and off again to switch off the parking lights.

Auxiliary headlights
–with additional headlight OE

Requirement
The auxiliary headlights are active only when the low-beam headlight is active.

The auxiliary headlights have approval as fog lights and their use is permissible in bad weather conditions only. Always comply with the road traffic regulations in force in the country in which the vehicle is used.

- Start the engine. (➠ 148)



- Press button **1** to switch on the auxiliary headlights.

shows.

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

Manual daytime riding light
–with daytime riding light OE

Requirement
Automatic daytime riding light is switched off.

WARNING

Switching on the daytime riding light in the dark.
Risk of accident
- Do not use the daytime riding light in the dark.

By comparison with the low-beam headlight, the daytime running light makes the vehicle more visible to oncoming traffic. This improves daytime visibility.

- Start the engine. (➠ 148)
- Navigate to `Settings`, `Vehicle settings`, `Lights` and switch off the `Auto. daytime light` function.



- Press button **1** to switch on the daytime riding light.

 shows.

» The low-beam headlight and the front side lights are switched off.

- In the dark or in tunnels: Press button **1** again to switch off the daytime riding light and switch on the low-beam headlight and the front side lights.

If the high-beam headlight is switched on while the daytime riding light is on, the daytime riding light is switched off after approx. two seconds and the high-beam headlight, low-beam headlight and front side light are switched on.
If the high beam headlight is switched off again, the daytime running light is not automatically reactivated, but must be switched on again if required.

Automatic daytime riding light
–with daytime riding light[OE]

The changeover between daytime riding light and low-beam headlight including front side lights can be effected automatically.

WARNING

The automatic daytime riding light is not a substitute for the rider's personal judgement of the light conditions
Risk of accident
- Switch off the automatic daytime riding light in poor light conditions.

- Navigate to `Settings`, `Vehicle settings`, `Lights` and switch on the `Auto. daytime light` function.

 is displayed.

» If ambient brightness drops below a certain value, the low-beam headlight is automatically switched on (e.g. in a tunnel). When sufficient ambient brightness is detected, the daytime riding light is switched back on.

shows.

Manual operation of the light when the automatic system is switched on

–with daytime riding light OE

–If you press the button for the daytime riding light the daytime riding light is switched off and the low-beam headlight and front side lights are switched on (e. g. when you ride into a tunnel, and the response of the automatic daytime riding light to the change in ambient brightness is delayed).

–If you press the button again the daytime riding light is reactivated, in other words the daytime riding light is switched on again when ambient light is bright enough.

Hazard warning lights

- Switch on the ignition. (➠ 64)

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



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

» Ignition can be switched off.

- To switch off the hazard warning lights system, switch on the ignition if necessary and press button **1** again.

Turn indicators

- Switch on the ignition. (➠ 64)
- Navigate to `Settings`, `Vehicle settings` and select `Lights`.
- Switch `Comfort turn indicator` on or off.



- Push button **1** to the left or right, as appropriate, to switch on the turn indicators.

» If the comfort turn indicators function is switched on, the turn indicators are cancelled automatically when the speed-dependent distance is covered.

- Alternatively: Press button **1** to cancel the turn indicators.

DYNAMIC TRACTION CONTROL (DTC)

Switching off DTC

- Switch on the ignition. (➠ 64)

Dynamic Traction Control (DTC) can also be switched off when the motorcycle is in motion.



- Press and hold down button **1** until the DTC indicator light changes status.

Immediately after button **1** is pressed, the DTC system status `ON` is displayed.

 shows.

Possible DTC system status `OFF!` is displayed.

- Release button **1** after the DTC system status changes.

The new DTC system status `OFF!` appears briefly on the display.

 remains lit.

» The DTC function is switched off.

Switch on DTC



- Press and hold down button **1** until the DTC indicator light changes status.

Immediately after button **1** is pressed, the DTC system status `OFF!` is displayed.

goes out; if self-diagnosis has not completed it starts flashing.

Possible DTC system status `ON` is displayed.

- Release button **1** once the status has changed.

remains off or continues to flash.

Possible DTC system status `ON` is displayed.

» The DTC function is switched on.

- For more information on Dynamic Traction Control (DTC) see the section entitled "Engineering details" (➠ 172).

ELECTRONIC SUSPENSION ADJUSTMENT (D-ESA)

Possibilities for adjustment, Dynamic ESA

–with Dynamic ESA[OE]

Dynamic ESA is an electronic system that enables your motorcycle's suspension to adjust automatically to suit the load the vehicle is carrying. When spring preload is set to `Auto`, the rider does not have to adjust the suspension to suit the load.

For more information on Dynamic ESA see the section headed "Engineering details" (➠ 175).

Viewing suspension settings

–with Dynamic ESA[OE]

- Switch on the ignition. (➠ 64)



- Short-press button **1** to view the current setting.



Immediately after button **1** is pressed, the settings for damping **2** and spring preload **3** are displayed.

» The setting shows briefly, then disappears automatically.

Adjusting suspension damping
–with Dynamic ESA[OE]

- Switch on the ignition. (➠ 64)



- Short-press button **1** to view the current setting.



Immediately after button **1** is pressed, the settings for damping **2** and spring preload **3** are displayed.
To adjust damping:

- Repeatedly short-press button **1** until the setting you want to use is displayed.

You can adjust the damping characteristic while the motorcycle is on the move.



Selection arrow **4** is displayed.

» The selection arrow **4** disappears after the status is changed.

The following settings are available:

– Road: Damping for comfortable on-road riding
– Dynamic: Damping for dynamic on-road riding
– Enduro: Damping for off-road riding. Available only in ENDURO or ENDURO Pro riding mode and cannot be adjusted in either of these riding modes.

The following message is displayed if it is not possible to adjust a setting in the selected riding mode: In ENDURO riding mode damp. not adjustable.

Adjusting spring preload

- Switch on the ignition. (➠ 64)



- Short-press button **1** to view the current setting.



Immediately after button **1** is pressed, the settings for damping **2** and spring preload **3** are displayed.

To adjust spring preload:

- Start the engine. (➠ 148)
- Repeatedly long-press button **1** until the setting you want to use is displayed.

BMW Motorrad recommends the Auto setting. Min can be used for better ground accessibility and Max, for example, for the off-road mode.

The Min, Auto and Max settings can be chosen only when the vehicle is stationary.

The following message is displayed if it is not possible to adjust a setting: Load adjustment only avail. stopped.



Selection arrow **4** is displayed.

» The selection arrow **4** disappears after the status is changed.

The following settings are available:

– `Min`: Minimum spring preload
– `Auto`: Automatic adjustment of spring preload
– `Max`: Maximum spring preload

» The settings for damping and spring preload shown on the display are automatically accepted if you allow a certain length of time to pass without pressing button **1**.



The new settings for damping **2** and spring preload **3** appear briefly on the display.

- If the temperature is very low, take the weight off the motorcycle before increasing spring preload; if applicable, have your passenger dismount.

» The chassis and suspension settings disappear once adjustment is complete.

» In `Auto` loading mode, the spring preload is adjusted only once the motorcycle is driven off.

RIDING MODE

Using riding modes

BMW Motorrad has developed operational scenarios for your motorcycle from which you can select the scenario suitable for your situation:

Standard

–ECO: Range-optimised riding.
–RAIN: Riding on rain-wet roads.
–ROAD: Riding on dry roads.

–with riding modes Pro OE

with riding modes Pro

–ENDURO: Riding off-road with road tyres.
–DYNAMIC: Dynamic riding on dry roads.
–ENDURO PRO: For riding off road with off-road tyres with large tread blocks while taking into account the settings made by the rider.
–DYNAMIC PRO: For dynamic riding on dry roadways while taking into account the settings made by the rider.

The optimum interplay of engine characteristic, DTC, ABS and MSR is provided for each of these scenarios.

–with Dynamic ESA OE

The chassis and suspension adjustment can also be adjusted in the scenario selected.
For more information on the riding modes, see the section entitled "Engineering details" (➠ 175).

Riding-mode preselection

You can preselect riding modes so that you can switch from one to the other while on the move. Between two and four riding modes can be preselected at any given time.
Factory setting:
ECO, RAIN and ROAD
–with riding modes Pro

additionally: ENDURO, DYNAMIC, ENDURO PRO and DYNAMIC PRO

Preselect a riding mode

- Switch on the ignition. (➠ 64)
- Navigate to `Settings`, `Vehicle settings`, `Driving mode preselection`.
- Select riding modes.

The following riding modes can be selected:
–`ECO`: For range-optimised riding.
–`RAIN`: For riding on rain-wet roads.
–`ROAD`: For riding on dry roads.

–with riding modes Pro OE

The following riding modes are additionally available for selection:
–`DYNAMIC`: For dynamic riding on dry roads.

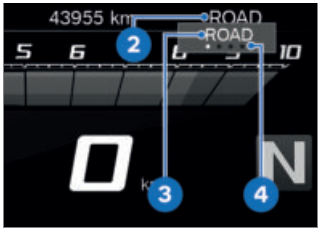
– ENDURO: For off-roading with road tyres.
– DYNAMIC PRO: For dynamic riding on dry roads with provision for the rider's custom settings.
– ENDURO PRO: For off-roading with cleated off-road tyres with provision for the rider's custom settings.◁

Select the riding mode

- Switch on the ignition. (➠ 64)
- Preselect a riding mode. (➠ 83)



- Press button **1**.



The riding mode currently active **2** is sent to the back and the first selectable riding mode **3** is displayed. The guide **4** indicates how many riding modes are available.



ATTENTION

Activation of the off-road mode (ENDURO and ENDURO PRO) for on-road riding

Risk of crash due to lack of stability when the vehicle brakes in the control range of ABS or accelerates in that of DTC.

- Activate off-road mode (ENDURO and ENDURO PRO) only for riding off-road.

- Repeatedly press button **1** until the riding mode you want is displayed.

–with riding modes Pro OE

The default setting is ABS deactivated for the rear wheel when the ENDURO PRO riding mode is active.◁

–with riding modes Pro OE

The intervention of riding dynamics control systems can be restricted, depending on which riding mode is selected and how the selected mode is configured.

Possible restrictions are indicated by a pop-up message, for example `Warning! ABS setting.`.

The ABS indicator light flashes irregularly.

See the section entitled "Engineering details" for more information on riding dynamics control systems such as ABS.◁

» With the motorcycle at a standstill, the selected mode is activated after approximately two seconds.

» The following conditions must be satisfied for activation of a new riding mode while riding:

–Throttle grip is in idle position.

–Brake is not applied.

–Adaptive cruise control is not active.

» The selected riding mode is retained with the engine-characteristic, DTC, ABS and MSR adaptation settings even after the ignition has been switched off.

RIDING MODE PRO

–with riding modes Pro[OE]

Adjustment option

The Pro riding modes can be set up individually only after being selected in riding mode preselection.

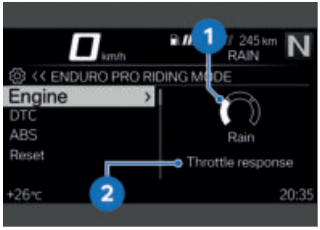
Selecting Pro riding mode

- Switch on the ignition. (➠ 64)
- Navigate to `Settings`, `Vehicle settings`, `Driving mode preselection`.
- Select `ENDURO PRO riding mode` or `DYNAMIC PRO riding mode`.
- Call up `Configuration`.

Setting up Enduro Pro

–with riding modes Pro[OE]

- Select Pro riding mode. (➠ 86)



The `Engine` system has been selected. The current setting is displayed as a diagram **1** with explanatory texts relating to the system **2**.

- Select system and confirm.



You can browse through the available settings **3** and the corresponding explanations **4**.

- Set up the system.

» The `Engine`, `DTC` and `ABS` systems can be set up in the same way.

- The settings can be reset to the factory settings:
- Reset the riding mode settings. (➠ 86)

Setting up Dynamic Pro

- Select Pro riding mode. (➠ 86)
- Set up the systems in the same way as with `ENDURO PRO riding mode`.

Resetting riding mode settings

- Select Pro riding mode. (➠ 86)
- Select `Reset` and confirm.

» The following factory settings apply for ENDURO PRO RIDING MODE:
– ENGINE: Road
– DTC: Enduro Pro
– ABS: Enduro Pro
» The following factory settings apply for DYNAMIC PRO RIDING MODE:
– ENGINE: Dynamic
– DTC: Dyna Pro
– ABS: Dynamic

CRUISE CONTROL

– with cruise control OE

Display when adjusting settings (Speed Limit Info not active)



Symbol **1** for cruise control is displayed in the Pure Ride view and in the top status line.

Display when adjusting settings (Speed Limit Info active)



Symbol **1** for cruise control is displayed in the Pure Ride view and in the top status line.

Switching on cruise control
Requirement
ECO, RAIN, ROAD or DYNAMIC riding mode is selected.

In ENDURO and ENDURO PRO riding modes, cruise control is not available.



• Slide switch **1** to the right.
» Button **2** is operational.

Setting road speed



- Short-push button **1** forward.

Adjustment range for adaptive cruise control (gear-dependent)
20...210 km/h

is displayed.

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

Accelerating



- Short-push button **1** forward.

» Speed is increased by approx. 1 km/h each time you push the button.

- Push button **1** forward and hold it in this position.

» The vehicle accelerates smoothly.

» The current speed is maintained and saved if button **1** is not pushed again.

Decelerating



- Short-push button **1** back.

» Speed is reduced by approx. 1 km/h each time you push the button.

- Push button **1** back and hold it in this position.

» The vehicle decelerates smoothly.

» The current speed is maintained and saved if button **1** is not pushed again.

Deactivating cruise control

- Brake, pull the clutch lever or turn the throttle grip (close the throttle by turning the grip back past the idle position) to deactivate adaptive cruise control.

For safety reasons, adaptive cruise control is automatically deactivated when Gear Shift Assistant Pro downshifts.

For safety reasons, adaptive cruise control is automatically deactivated whenever ABS or DTC intervention occurs. If DTC is deactivated by the rider, adaptive cruise control is deactivated as well.

disappears.

Resuming former cruising speed

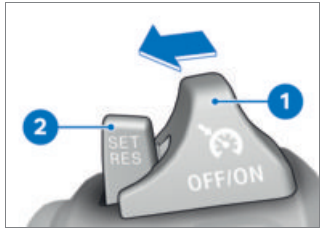


- Short-push button **1** back to return to the speed saved beforehand.

Opening the throttle does not deactivate cruise control. When the twistgrip is released the motorcycle decelerates only to the speed saved in memory, even if the rider intended slowing to a lower speed.

is displayed.

Switching off cruise control



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

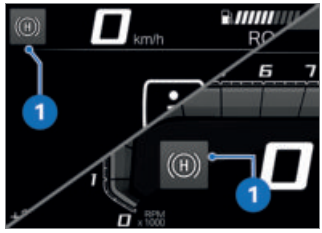
» The system is deactivated.

disappears.

» Button **2** is disabled.

HILL START CONTROL

Display



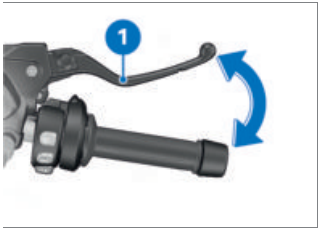
Symbol **1** for Hill Start Control is displayed in the Pure Ride view and in the top status line.

Operating Hill Start Control
Requirement
Vehicle stationary and upright, engine running.

ATTENTION

Failure of Hill Start Control
Risk of accident
- Apply the brakes manually to hold the vehicle.

Hill Start Control is purely a comfort system to facilitate holding the machine and pulling way on uphill gradients and should not be confused with a parking brake.



- Apply firm pressure to handbrake lever **1** or to the footbrake lever and then quickly release the lever.

shows green.

» Hill Start Control is activated.
- To switch off Hill Start Control, operate handbrake lever **1** or the footbrake lever again.

disappears.

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

In order for the motorcycle to pull away from rest with Hill Start Control, the throttle grip has to be turned to open the throttle for pullaway.

disappears.

» Hill Start Control is deactivated.
- For more information on Hill Start Control see the section headed "Engineering details" (➠ 183).

Switch Hill Start Control on or off
- Switch on the ignition. (➠ 64)
- Navigate to `Settings`, `Vehicle settings`.
- Switch `Hill Start Control` on or off.

Operating Hill Start Control Pro
–with riding modes Pro[OE]

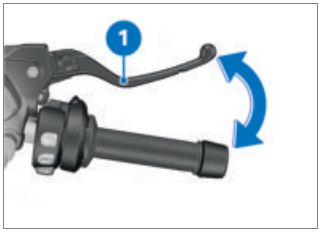
Requirement
Vehicle stationary and upright, engine running.

ATTENTION

Failure of Hill Start Control
Risk of accident
- Apply the brakes manually to hold the vehicle.

The drive-off assistant Hill Start Control Pro is only a comfort system to enable easier riding off on gradients and should not be confused with an electromechanical holding brake.

The Hill Start Control Pro drive-off assistant should not be used on inclines of over 40 %.



- Apply firm pressure to handbrake lever **1** or to the footbrake lever and then quickly release the lever.
- Alternatively, apply the brake for about one second beyond the vehicle reaching a standstill on an incline of at least 3 %.

shows green.

» Hill Start Control Pro is activated.
- To switch off Hill Start Control Pro, operate handbrake lever **1** or the footbrake lever again.

If Hill Start Control Pro has been deactivated by means of the handbrake lever, automatic Hill Start Control is deactivated for the next 4 m.

disappears.

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

In order for the motorcycle to pull away from rest with Hill Start Control Pro, the throttle grip has to be turned to open the throttle for pullaway.

disappears.

» Hill Start Control Pro is deactivated.
- For more information on Hill Start Control Pro see the sec-

tion headed "Engineering details" (➠ 183).

Adjust Hill Start Control Pro

–with riding modes Pro OE

- Switch on the ignition. (➠ 64)
- Navigate to `Settings`, `Vehicle settings`.
- Select `HSC Pro`.
- To switch off Hill Start Control Pro, select `Off`.

» Hill Start Control Pro is deactivated.

- To switch on manual Hill Start Control Pro, select `Manual`.

» Hill Start Control Pro can be activated by forcefully operating the handbrake or footbrake lever.

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

» Hill Start Control Pro can be activated by forcefully operating the handbrake or footbrake lever.

» If the brake is actuated for approximately one second after the vehicle has come to a standstill and the motorcycle is on a gradient of at least 3%, Hill Start Control Pro is automatically activated.

» The selected setting remains stored even after the ignition is switched off.

ANTI-THEFT ALARM (DWA)

–with anti-theft alarm (DWA) OE

Activation

- Switch on the ignition. (➠ 64)
- Customise the anti-theft alarm settings. (➠ 95)
- Switch off the ignition. (➠ 65)

» If the alarm system is activated, then the alarm system will be automatically activated when the ignition is switched off.

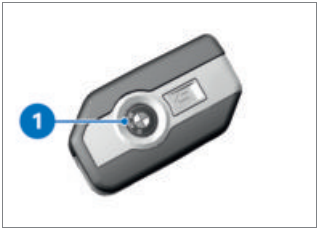
» Activation takes approximately 30 seconds to complete.

» Turn indicators flash twice.

» Confirmation tone sounds twice (if programmed).

» Anti-theft alarm is active.

–with Keyless Ride OE



- Switch off the ignition. (➠ 65)
- Press button **1** on the radio-operated key twice.

» Activation takes approximately 30 seconds to complete.
» Turn indicators flash twice.
» Confirmation tone sounds twice (if programmed).
» Anti-theft alarm is active.



- To deactivate the motion sensor (for example if you are about to transport the motorcycle on a train and the swaying movement of the moving train could trip the alarm), press button **1** on the radio-operated key again during the activation phase.

» Turn indicators flash three times.
» Confirmation tone sounds three times (if programmed).
» Motion sensor has been deactivated.◁

Alarm signal

A DWA alarm can be triggered by:
– Motion sensor
– Switch-on attempt with an unauthorised vehicle key.
– Disconnection of the DWA anti-theft alarm from the vehicle's battery (DWA internal battery in the anti-theft alarm provides power - acoustic alarm only, the turn indicators do not flash)

When the radio-operated key is within range, an alarm triggered by the tilt sensor is suppressed.

All functions are sustained even if the internal battery of the DWA anti-theft alarm system is flat; the only difference is that an alarm cannot be triggered if the system is disconnected from the vehicle's battery.

An alarm lasts for approximately 26 seconds. While an alarm is in progress an alarm tone sounds and the turn indicators flash. The type of acoustic alarm tone can be set by an authorised BMW Motorrad retailer.

–with Keyless Ride OE



You can cancel an alarm at any time by pressing button **1** on the radio-operated key; this does not deactivate the alarm system.

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

Light signals issued by the DWA LED:

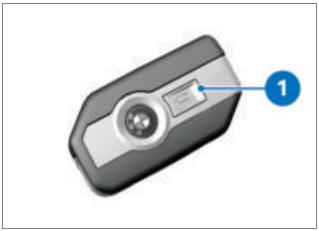
–Flashes 1x: Motion sensor 1
–Flashes 2x: Motion sensor 2
–Flashes 3x: Ignition switched on with unauthorised key
–Flashes 4x: Disconnection of the DWA anti-theft alarm from the motorcycle's battery
–Flashes 5x: Motion sensor 3

Deactivation

- Kill switch in operating position (run).
- Switch on the ignition. (➠ 64)

» Turn indicators flash once.
» Confirmation tone sounds once (if programmed).
» DWA has been switched off.

–with Keyless Ride OE



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

If the alarm function is deactivated by the radio-operated key and the ignition is not subsequently switched on, the alarm function is automatically reactivated after approx. 30 seconds if `Arm automatically` is switched on.

» Turn indicators flash once.
» Confirmation tone sounds once (if programmed).
» DWA has been switched off.◁

Customise the anti-theft alarm settings

- Switch on the ignition. (➠ 64)
- Navigate to `Settings`, `Vehicle settings`, `Alarm system`.

» The following settings are available:

–Adapting `Warning signal`
–Switch `Tilt sensor` on or off
–Switch `Arming tone` on or off
–Switch `Arm automatically` on or off

» Possible settings (➠ 95)

Possible settings

`Warning signal`: set the increasing and decreasing or intermittent alarm tone.
`Tilt sensor`: activate inclination sensor to monitor the inclination of the vehicle. The DWA responds, for example, to wheel theft or being towed away.

When the vehicle is going to be transported, deactivate the tilt sensor to prevent the anti-theft alarm (DWA) from being triggered.

`Arming tone`: confirmation alarm tone after having activated/deactivated the DWA in addition to flashing turn indicators.
`Arm automatically`: automatic activation of the alarm function when switching off the ignition.

TYRE PRESSURE MONITORING (RDC)

–with riding modes Pro OE
–with tyre pressure control (RDC) OE

Switch the target-pressure warning on or off

- The system can be set to issue a target-pressure warning if tyre pressure drops to the defined minimum.
- Navigate to `Settings`, `Vehicle settings`, `RDC`.
- Switch `Target pressure warn.` on or off.

HEATING

Operating heated handlebar grips

–with heated grips OE
–without seat heating OE

The heating in the heated handlebar grips can be activated only when the engine is running.

The increase in power consumption caused by having the heated handlebar grips switched on can drain the battery if you are riding at low engine speeds. If the charge level is low, the heated handlebar grips are switched off to ensure the battery's starting capability.

- Start the engine. (➠ 148)



- Repeatedly press button **1** until desired heating stage **2** appears in front of heated grip symbol **3**.

The handlebar grips have two-stage heating.

1 Low heating power

2 High heating power

» The high stage is for heating the grips quickly: it is advisable to switch back to stage 1 as soon as the grips are warm.

» The selected heating stage will be saved if you allow a certain length of time to pass without making further changes.

- To switch off the heated grips, repeatedly press button **1** until heated grip symbol **3** disappears.

Operate the heating

–with heated grips OE

–with seat heating OE

The heating in the heated handlebar grips and the seat heating can be activated only when the engine is running.

- Start the engine. (➠ 148)



- Press button **1**.

» `HEATING` menu opens.

- Select `Grip heating` or `Seat heating`.

- Select the desired heating stage and confirm your choice.

» The selected heating stage appears on the left beside heating symbol **2**.

- Press button **1** to close the HEATING menu.
- To switch the heating off, or on again with the heating stage selected beforehand, long-press button **1**.

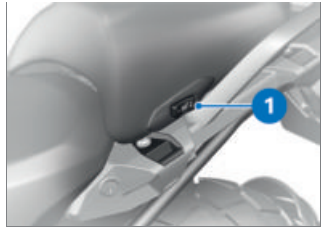
The selected heating-stage settings are retained in memory when the ignition is switched off.

Operating passenger-seat heating

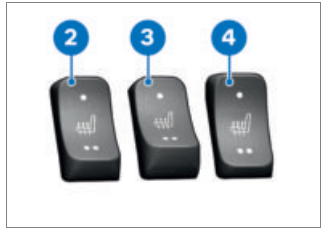
–with heated grips OE
–with seat heating OE

- Start the engine. (➠ 148)

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

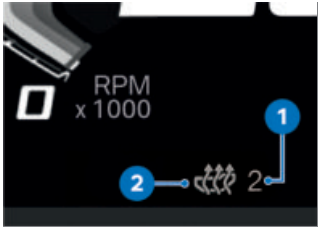


- Set switch **1** to the desired heating stage.



The rear seat has two-stage heating. Stage two is for heating the seat quickly: it is advisable to switch back to stage one as soon as the seat is warm.

–**2** Switch centred: Heating off.
–**3** Switch pressed at one dot: low heating power.
–**4** Switch pressed at two dots: high heating power.



Selected heating stage **1** and seat-heating symbol **2** are displayed.

TFT DISPLAY

05

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GENERAL NOTES

TFT display

WARNING

Operation of a smartphone while riding the vehicle
Risk of accident
- Always comply with the road traffic regulations in force where you are riding.
- Do not use a smartphone while riding. This applies with the exception of applications without operation, such as hands-free telephony.

WARNING

Distraction from the road and loss of control
Operating the integrated information system and communication devices while driving results in a risk of accident
- Operate those systems or devices only when the traffic situation allows for it.
- If necessary, stop and operate the systems or devices when stationary.

Connectivity functions
Connectivity functions include media, telephony and navigation. Connectivity functions can be used when the TFT display is paired with a mobile end device and a helmet (➠ 112). For more information on the Connectivity functions go to: **bmw-motorrad.com/connectivity**

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

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

BMW Motorrad Connected App
The BMW Motorrad Connected App contains usage and vehicle information. For some functions, such as navigation, the app must be installed on the mobile end device and connected to the TFT display. The app is used to start route guidance and adjust the navigation.

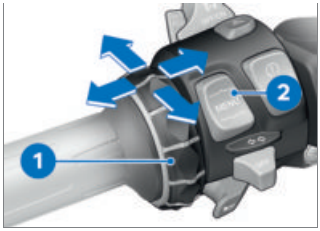
On some mobile devices, e.g. those with iOS operating systems, the BMW Motorrad Connected App must be opened before use.

Currency

Updates of the TFT display subsequent to the date of publication are possible. Because of this, your vehicle may differ from the information supplied in the rider's manual. Up-to-date information is available at **bmw-motorrad.com/service**.

PRINCIPLE

Controls



All display content is controlled by means of Multi-Controller **1** and MENU rocker button **2**. Depending on the context, the following functions are possible.

Functions of the Multi-Controller

Turn the Multi-Controller up:

–Move the cursor up in lists.
–Adjust settings.
–Increase volume.

Turn the Multi-Controller down:

–Move the cursor down in lists.
–Adjust settings.
–Decrease volume.

Tilt the Multi-Controller to the left:

–Activate the function in accordance with the operation feedback.
–Activate the function to the left or back.
–Go back to the Menu view after making the settings.
–In Menu view: Change up one level.
–In the `My vehicle` menu: Advance one menu screen.

Tilt the Multi-Controller to the right:

–Activate the function in accordance with the operation feedback.
–Confirm selection.
–Confirm settings.
–Advance a menu step.
–Scroll to the right in lists.

–In the My vehicle menu: Advance one menu screen.

MENU rocker button functions

Instructions given by the navigation system are displayed in a dialogue box if the Navigation menu has not been called up. Operation of the MENU rocker button is temporarily restricted.

Short-press the top section of the MENU button:

–In Menu view: Change up one level.
–In Pure Ride view: Change the display for rider info. status line.

Long-press the top section of the MENU button:

–In Menu view: Open the Pure Ride view.
–In Pure Ride view: Switch the operating focus to the Navigator.

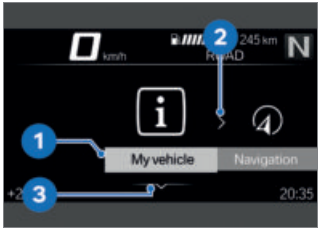
Short-press the bottom section of the MENU button:

–Change down a level.
–No function if the lowest hierarchical level has been reached.

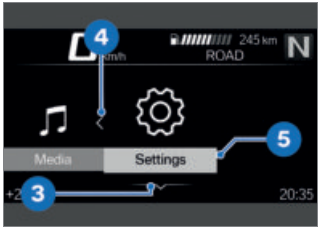
Long-press the bottom section of the MENU button:

–Change back to the last menu after a previous menu change effected by long-pressing the top section of the MENU rocker button.

Operating pointers in the main menu



Operating pointers show whether interactions are possible, and which ones.



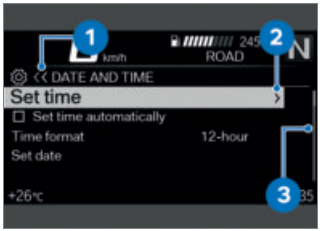
Meaning of the operating pointers:

–Operating pointer **1**: Left end reached.

–Operating pointer **2**: You can scroll to the right.
–Operating pointer **3**: You can scroll down.
–Operating pointer **4**: You can scroll to the left.
–Operating pointer **5**: Right end reached.

Operating pointers in submenus

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



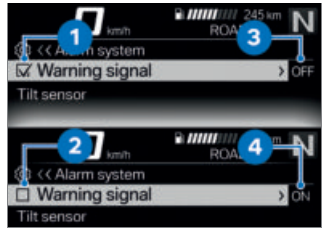
Meaning of the operating pointers:

–Operating pointer **1**: The current display is in a hierarchical menu. One symbol represents one submenu level. Two symbols represent two or more submenu levels. The colour of the symbol changes, depending on whether you can return to a higher level.
–Operating pointer **2**: One more submenu level can be accessed.
–Operating pointer **3**: There are more entries than can be displayed.

Display Pure Ride view

- Long-press the top section of the MENU rocker button.

Switching functions on and off



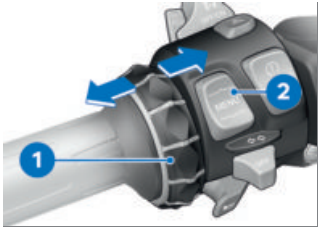
Some menu items have a check box in front of them. The check box shows whether the function is on or off. Action symbols after the menu items indicate what action you can trigger by short-tilting the Multi-Controller to the right.

Examples for switching on and off:

–Symbol **1** shows that the function is switched on.
–Symbol **2** shows that the function is switched off.

–Symbol **3** shows that the function can be switched off.
–Symbol **4** shows that the function can be switched on.

Calling up menu



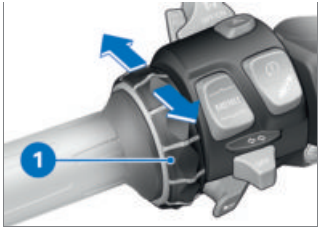
- Display the Pure Ride view. (➠ 105)
- Short-press the bottom section of button **2**.

The following menus can be called up:
–`My vehicle`
–`Navigation`
–`Media`
–`Telephone`
–`Settings`

- Repeatedly short-push Multi-Controller **1** to the right until the menu item you want is highlighted.
- Short-press the bottom section of button **2**.

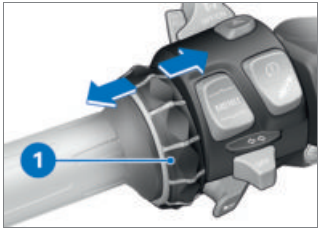
The `Settings` menu can only be called up when the vehicle is stationary.

Moving cursor in lists



- Call up a menu. (➠ 106)
- To move the cursor down in a list, turn Multi-Controller **1** down until the entry you want is highlighted.
- To move the cursor up in a list, turn Multi-Controller **1** up until the entry you want is highlighted.

Confirming selection



- Select the desired entry.
- Short-push Multi-Controller **1** to the right.

Call up the last menu used

- In Pure Ride view: Long-press the bottom section of the MENU rocker button.

» The last menu used is called up. The last entry highlighted is selected.

Change of operating focus

–with preparation for navigation system OE

If the Navigator is connected, it is possible to switch between operation of the Navigator and the TFT display.

Change the operating focus

–with preparation for navigation system OE

- Secure the navigation device. (➠ 237)
- Display the Pure Ride view. (➠ 105)
- Long-press the top section of the MENU rocker button.

» Operating focus switches to the Navigator or the TFT display, as applicable. The active device is highlighted on the left in the top status line. Operator actions affect the currently active device until the operating focus is changed again.

» Operating navigation system (➠ 238)

System status displays

The system status is displayed in the lower area of the menu if a function is switched on or off.



Example of what the system statuses mean:

–System status **1**: DTC function is switched on.

Changing display for rider info. status line

Requirement

The vehicle is at a standstill. The Pure Ride view is displayed.

- Switch on the ignition. (➠ 64)

» The TFT display shows all the information necessary for riding on public roads from the on-board computer (e.g. TRIP 1) and the trip computer (e.g. TRIP 2). The information can be displayed in the top status line.

–with tyre pressure control (RDC) OE

» Information from the tyre pressure monitoring can also be displayed.◁

- Select the content of the rider info. status line. (➠ 108)



- Long-press button **1** to obtain the Pure Ride view.
- Repeatedly short-press button **1** to select the value in the top 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)

–with tyre pressure control (RDC) OE

Tyre pressure◁

Range

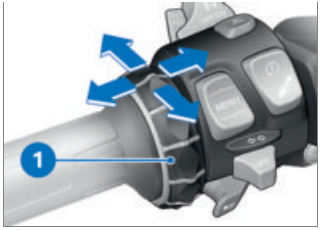
Fuel tank level

Select the content of the rider info. status line

- Navigate to Settings, Display, Status line content.
- Switch on the desired displays.

» You can switch between the selected displays in the rider info. status line. If no displays are selected, only the range will be displayed.

Adjusting settings



- Select and confirm the desired settings menu.
- Turn Multi-Controller **1** down until the setting you want is highlighted.
- If an operating pointer shows, tilt Multi-Controller **1** to the right.
- If no operating pointer shows, tilt Multi-Controller **1** to the left.

» The setting is saved.

Switch Speed Limit Info on or off

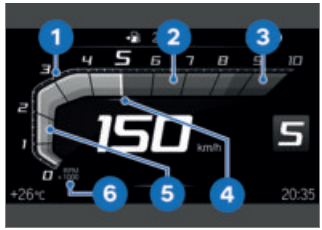
Requirement

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

- `Speed Limit Info` shows the maximum speed permitted at the time, if this information is made available by the publisher of the map material in the navigation system.
- Navigate to `Settings`, `Display`.
- Switch `Speed Limit Info` on or off.

PURE RIDE VIEW

Rev. counter



1 Scale
2 Low engine speed range
3 Upper/red engine speed range
4 Needle
5 Secondary indicator
6 Unit for engine speed display:
1000 revolutions per minute

The red engine speed range changes depending on the coolant temperature: The colder the engine, the lower the engine speed at which the red engine speed range starts.

The warmer the engine, the higher the speed at which the red engine speed range starts. When operating temperature is reached, the display of the red engine speed range no longer changes.

Range



The range readout **1** indicates how far you can ride with the fuel remaining in the tank. This distance is calculated on the basis of average consumption and the quantity of fuel on board.

– When the vehicle is propped on its side stand the slight angle of inclination means that the sensor cannot register the fuel level correctly. This is the reason why the range is recalculated only when the side stand is in the retracted position.
– The range is shown together with a warning once the fuel reserve has been reached.
– After a refuelling stop, range is recalculated if the amount of fuel in the tank is greater than the reserve quantity.
– The calculated range is only an approximate figure.

Recommendation to upshift



The recommendation to upshift in the status line **1** or in the Pure Ride view **2** indicates the best time to upshift economically.

GENERAL SETTINGS

Adjusting volume

- Connect the rider's and passenger's helmets. (➠ 114)
- Increase volume: Turn the Multi-Controller up.
- Reduce volume: Turn the Multi-Controller down.
- Mute: Turn the Multi-Controller all the way down.

Set the date

- Switch on the ignition. (➠ 64)
- Navigate to `Settings`, `System settings`, `Date and time`, `Set date`.
- Set `Day`, `Month` and `Year`.
- Confirm setting.

Set date format

- Navigate to `Settings`, `System settings`, `Date and time`, `Date format`.
- Select the desired setting.
- Confirm setting.

Set the clock

- Switch on the ignition. (➠ 64)
- Navigate to `Settings`, `System settings`, `Date and time`, `Set time`.
- Set `Hour` and `Minute`.

Set the time format

- Navigate to `Settings`, `System settings`, `Date and time`, `Time format`.
- Select the desired setting.
- Confirm setting.

Set units of measurement

- Navigate to `Settings`, `System settings`, `Units`.

The following units of measurement can be set:

–with tyre pressure control (RDC) OE
–Pressure◁
–Temperature
–Speed
–Consumption

Set the language

- Navigate to `Settings`, `System settings`, `Language`.

The following languages can be set:

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

Adjusting brightness

- Navigate to `Settings`, `Display`, `Brightness`.
- Adjust display brightness.

» When ambient brightness drops below a defined

threshold, the display is dimmed to the brightness set here.

Reset all settings

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

The settings in the following menus are reset:

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

» Existing Bluetooth connections are not deleted.

BLUETOOTH

Short-range wireless technology

The Bluetooth function might not be available in certain countries.

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

Although Bluetooth is designed to establish and sustain robust connections over short distances, as with every other wireless technology disruptions are possible. Interference can affect connections or connections can sometimes fail. Particularly when multiple devices operate in a Bluetooth network, with wireless technology of this nature it is not possible to ensure fault-free communications in every situation.

Possible sources of interference:

–interference zones due to transmission masts and similar.
–devices with non-compliant Bluetooth implementations.
–proximity of other Bluetooth-compatible devices.
–Shielding by metal objects or bodies.

Pairing

Two Bluetooth devices must detect each other before they can create a connection with each other. This process of mutual recognition is known as pairing. When two devices have paired they remember

each other, so the pairing process is conducted only once, on initial contact.

On some mobile devices, e.g. those with iOS operating systems, the BMW Motorrad Connected App must be opened before use.

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

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

Please consult the operating instructions for your communication system.

Pairing

- Navigate to `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.

Connect mobile device

- Perform pairing. (➠ 113)
- Activate the mobile device's Bluetooth function (see mobile device's operating instructions).
- Select `Mobile device` and confirm.
- Select `PAIR NEW MOBILE DEVICE` and confirm.

Mobile end devices are being searched for.

The Bluetooth symbol flashes in the bottom status line during pairing.

Mobile end devices found are displayed.

- Select and confirm mobile device.
- Follow the instructions on the mobile device.
- Confirm that the code matches.

» The connection is established and the connection status updated.
» If the connection is not established, consult the troubleshooting chart in the section entitled "Technical data". (➠ 254)
» Depending on the mobile device, telephone data is transferred to the vehicle automatically.
» Telephone data (➠ 122)
» If the phonebook is not displayed, consult the troubleshooting chart in the section entitled "Technical data". (➠ 255)
» If the Bluetooth connection does not work as expected, consult the troubleshooting chart in the section entitled "Technical data". (➠ 255)

Connect rider's and passenger's helmet

- Perform pairing. (➠ 113)
- Select `Rider's helmet` or `Passenger helm.` and confirm.
- Make the helmet's communication system visible.
- Select `PAIR NEW RIDER'S HELMET` or `PAIR NEW PASSENG. HELMET` and confirm.

Helmets are searched for.


The Bluetooth symbol flashes in the bottom status line during pairing.

Helmets found are displayed.

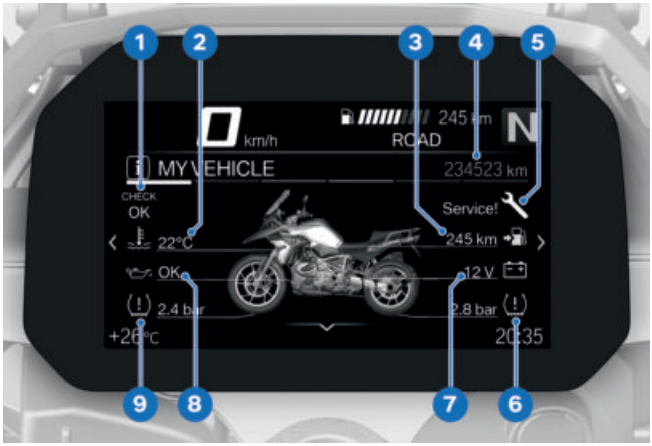
- Select and confirm helmet.

» The connection is established and the connection status updated.
» If the connection is not established, consult the troubleshooting chart in the section entitled "Technical data". (➠ 254)
» If the Bluetooth connection does not work as expected, consult the troubleshooting chart in the section entitled "Technical data". (➠ 255)

Delete connections

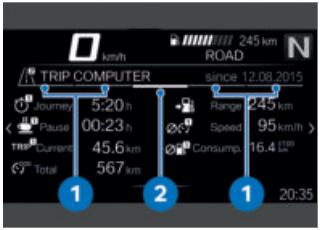
- Navigate to `Settings`, `Connections`.
- Select `Delete connections`.
- To delete an individual connection, select the connection and confirm.
- To delete all connections, select `Delete all connections` and confirm.

MY VEHICLE
START SCREEN



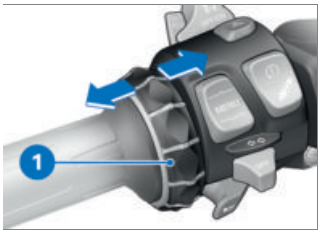
1 Check Control display
Mode of presentation
(➠ 31)
2 Coolant temperature
(➠ 45)
3 Range (➠ 110)
4 Odometer
5 Service display (➠ 60)
6 Tyre pressure, rear
(➠ 49)
7 On-board voltage
(➠ 216)
8 Engine oil level (➠ 45)
9 Tyre pressure, front
(➠ 49)

Operating pointers



– Operating pointer **1**: Indicators showing how far you can scroll to the left or right.
– Operating pointer **2**: Indicator showing the position of the current menu screen.

Scrolling through menu screens



- Call up the `My vehicle` menu.
- To scroll to the right, short-press Multi-Controller **1** to the right.
- To scroll to the left, short-press Multi-Controller **1** to the left.

The My Vehicle menu contains the following screens:

– `MY VEHICLE`
– `ON-BOARD COMPUTER`
– `TRIP COMPUTER`
– with tyre pressure control (RDC) OE
– `TYRE PRESSURE◁`
– `SERVICE REQUIREMENTS`

- For more information on tyre pressures and Check Control messages, see the section on displays (➠ 31).

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

On-board computer and trip computer

The `ON-BOARD COMPUTER` and `TRIP COMPUTER` menu screens display vehicle and trip data, such as average values.

Call up the on-board computer

- Call up the `My vehicle` menu.

- Scroll to the right until the ON-BOARD COMPUTER menu screen is displayed.

Reset the on-board computer

- Call up the on-board computer. (➠ 116)
- Press down the MENU rocker button.
- Select Reset all values or Reset individual values and confirm.

The following values can be reset:


Break


Journey


Current


Speed


Consump.

Call up the trip computer

- Call up the on-board computer. (➠ 116)
- Scroll to the right until the TRIP COMPUTER menu screen is displayed.

Reset the trip computer

- Call up the trip computer. (➠ 117)
- Press down the MENU rocker button.
- Select Autom. reset or Reset all values and confirm.

» If Autom. reset is selected, the trip computer is automatically reset when a minimum of 6 hours have passed and the date has changed since the ignition was switched off.

Service requirements



When the next service is due within less than a month or within 1000 km, a white Check Control message is displayed.

NAVIGATION

TFT display

WARNING

Operation of a smartphone while riding the vehicle
Risk of accident
- Always comply with the road traffic regulations in force where you are riding.
- Do not use a smartphone while riding. This applies with the exception of applications without operation, such as hands-free telephony.

WARNING

Distraction from the road and loss of control
Operating the integrated information system and communication devices while driving results in a risk of accident
- Operate those systems or devices only when the traffic situation allows for it.
- If necessary, stop and operate the systems or devices when stationary.

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

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

On some mobile devices, e.g. those with iOS operating systems, the BMW Motorrad Connected App must be opened before use.

Enter the destination address
- Connect a mobile device. (➠ 113)
- Call up the BMW Motorrad Connected app and start the route guidance.
- Call up the `Navigation` menu in the TFT display.

» Active route guidance is displayed.

» If active route guidance is not displayed, consult the troubleshooting chart in the section entitled "Technical data". (➠ 255)

Select destination from recent destinations
- Navigate to `Navigation`, `Recent destinations`.
- Select and confirm destination.

- Select Start route guidance.

Select destination from favourites

- The FAVOURITES menu shows all the destinations saved as favourites in the BMW Motorrad Connected app. No new favourites can be added using the TFT display.
- Navigate to Navigation, Favourites.
- Select and confirm destination.
- Select Start guidance.

Enter special destinations

- Special destinations, such as points of interest, can be displayed on the map.
- Navigate to Navigation, POIs.

The following locations can be selected:

–At current location
–At destination
–Along the route

- Select where the special destinations should be looked for.

For example, the following special destination can be selected:

–Filling station

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

Set route criteria

- Navigate to Navigation, Route criteria.

The following criteria can be selected:

–Route type
–Avoid

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

The number of avoidances activated is displayed in brackets.

View the route information

- Navigate to Navigation, Settings and select Route info.

You can choose between the following options:

–Dest.
–Waypoint

- Select the desired option.

» Countdown distance and time are displayed.

Edit route guidance

- Navigate to Navigation, New destination.

You can choose from the following destinations:

–Recent destinations
–Favourites
–POIs

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

End route guidance

- Navigate to Navigation, Active route guidance.
- Select End route guidance and confirm.

Switch spoken instructions on or off

- Connect the rider's and passenger's helmets. (➠ 114)
- The navigation can be read out by a computer voice. For this purpose, Spoken instruction must be switched on.
- Navigate to Navigation, Active route guidance.
- Switch Spoken instruction on or off.

Repeat last spoken instruction

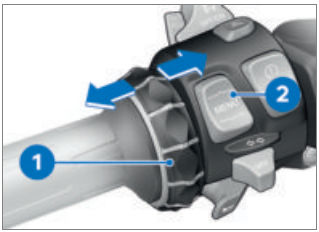
- Navigate to Navigation, Active route guidance.
- Select Current instruction and confirm.

MEDIA

Precondition

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

Controlling music playback



- Call up the Media menu.

BMW Motorrad recommends setting the volume on the mobile end device for media and calls to maximum before setting off.

- Adjust volume. (➠ 110)
- Next track: Short-tilt Multi-Controller **1** to the right.
- Preceding track or start of current track: Short-tilt Multi-Controller **1** to the left.
- Fast forward: Long-tilt Multi-Controller **1** to the right.
- Rewind: Long-tilt Multi-Controller **1** to the left.
- Call up context menu: Press bottom section of button **2**.

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

» The following functions can be used in the context menu:
– Playback or Pause.
– Select the Now playing, All artists, All albums or All tracks category for search and playback.
– Select Playlists.

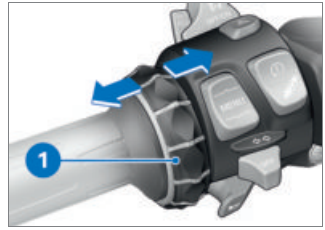
You can adjust the following settings in the Audio settings submenu:
– Switch Shuffle on or off.
– Select Repeat: Off, One (current track) or All.

TELEPHONE

Precondition

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

Telephone calls



- Call up the Telephone menu.
- Accept call: Tilt Multi-Controller **1** to the right.
- Reject call: Tilt Multi-Controller **1** to the left.
- End call: Tilt Multi-Controller **1** to the left.

Muting

During active phone calls, the microphone in the helmet can be muted.

Phone calls with multiple participants

A second call can be accepted while you are on a call. The first phone call is put on hold. The number of active telephone calls is shown in the Telephone menu. It is possible to switch between two phone calls.

Telephone data

Depending on the mobile end device, telephone data may be transmitted to the vehicle automatically once pairing is complete (➠ 112).

`Phone book`: list of contacts saved on the mobile end device

`Call list`: list of calls with the mobile end device

`Favourites`: list of favourites saved on the mobile end device

DISPLAY SOFTWARE VERSION

- Navigate to `Settings`, `Information`, `Software version`.

DISPLAY LICENCE INFORMATION

- Navigate to `Settings`, `Information`, `Licences`.

ADJUSTMENT

06

MIRRORS 126
HEADLIGHT 127
WINDSCREEN 128
CLUTCH 129
GEARSHIFT LEVER 130
BRAKES 130
FOOTRESTS 132
HANDLEBARS 133
SEATS 133
RALLYE SEAT 137
SPRING PRELOAD 138
DAMPING 139

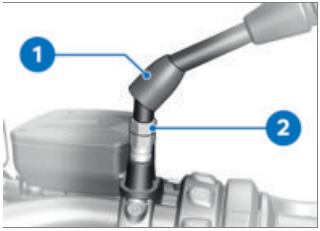
MIRRORS

Adjusting mirrors



- Turn the mirror to the correct position.

Adjusting mirror arm



- Push protective cap **1** over the threaded fastener of the mirror arm up to expose the threaded fastener.
- Slacken nut **2**.
- Turn the mirror arm to the appropriate position.
- Tighten the nut to the specified torque, while holding the mirror arm to ensure that it does not move out of position.

	Mirror (locknut) to adapter
M10 x 1.25	
22 Nm (Left-hand thread)	

- Push protective cap **1** over the threaded fastener.

Adjusting mirrors

–with Option 719 Billet Pack Classic II[OE]

or

–with Option 719 Billet Pack Storm II[OE]

or

–with Option 719 Billet Pack Shadow II[OE]



- Turn the mirror **1** to the correct position.

Adjusting mirror arm

–with Option 719 Billet Pack Classic II[OE]

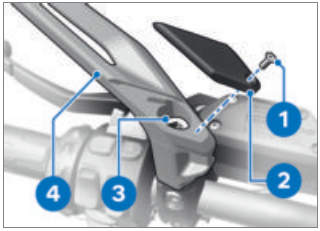
or

–with Option 719 Billet Pack Storm II[OE]

or

–with Option 719 Billet Pack Shadow II[OE]

A small and a large angle screwdriver is supplied with the vehicle for adjusting the mirror arm.



- Remove bolt **1** and cover **2**.
- Loosen adjusting screw **3** and turn the mirror arm **4** to the desired position.
- Tighten adjusting screw **3**, while holding the mirror arm.
- Attach cover **2** and fit bolt **1**.

Mirror on handlebars
M10 x 30
25 Nm
–with hand protector[OE]

Mirror on handlebars
M10 x 50
25 Nm◁

HEADLIGHT

Headlight beam throw and spring preload

Headlight beam throw is generally kept constant when spring preload is adjusted to suit load.

Spring preload adjustment might not suffice only if the motorcycle is very heavily loaded. Under these circumstances, headlight beam throw has to be adjusted to suit the weight carried by the motorcycle.

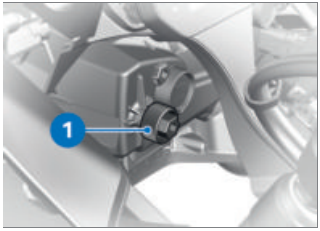
If there are doubts about the correct headlight beam throw, have the setting checked by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Adjusting headlight beam throw

Requirement

When the motorcycle is heavily loaded, spring preload adjustment is not enough to prevent the vehicle's headlight from dazzling oncoming traffic.

–without control for headlight[OE]



- Adjust headlight beam throw by turning adjusting screw **1**.

◁

–with control for headlight[OE]



If, for a high load, the adjustment of the spring pre-load is no longer sufficient not to dazzle oncoming traffic:

- Turn adjuster knob **1** counterclockwise to shorten the headlight beam throw.

When the motorcycle is again ridden with a lower load:

- Have the basic settings of the headlight restored by a specialist workshop, preferably an authorised BMW Motorrad retailer.◁

WINDSCREEN

Adjusting windscreen



WARNING

Adjusting the windscreen while riding

Risk of falling

- Do not attempt to adjust the windscreen unless the motorcycle is at a standstill.

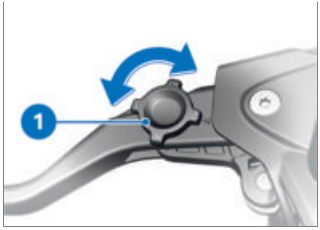
- Turn adjuster knob **1** clockwise to lower the windscreen.
- Turn adjuster knob **1** counterclockwise to raise the windscreen.

CLUTCH

Adjusting clutch lever

WARNING

Adjusting the clutch lever while riding
Risk of accident
- Adjust the clutch lever only when the motorcycle is at a standstill.

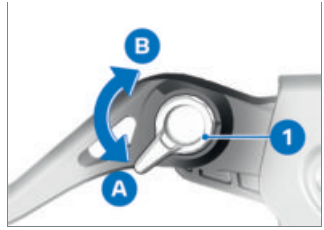


- Turn adjuster knob **1** to the desired position.

The adjuster is easier to turn if you push the clutch lever forward.

» Adjustment options:
– Position 1: Narrowest span between handlebar grip and clutch lever
– Position 4: Widest span between handlebar grip and clutch lever

– with Option 719 Billet Pack Classic II[OE]
or
– with Option 719 Billet Pack Storm II[OE]
or
– with Option 719 Billet Pack Shadow II[OE]



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

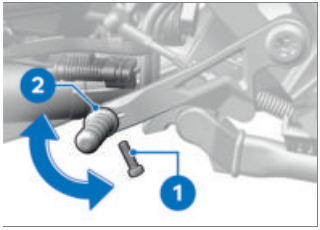
» Adjustment options:
– From position **A**: Narrowest span between handlebar grip and clutch lever.
– In 5 steps toward position **B** to increase the span between handlebar grip and clutch lever.◁

GEARSHIFT LEVER

–with Option 719 Billet Pack Classic II[OE]
or
–with Option 719 Billet Pack Storm II[OE]
or
–with Option 719 Billet Pack Shadow II[OE]

Adjusting gearshift lever peg

- Foot clearance and height relative to peg **2** can be adjusted by turning to different positions.
- Remove screw **1**.



- Clean the threads.
- Turn peg **2** to the desired position.
- Install **new** screw **1**.

Peg to gearshift lever
M6 x 20
Thread-locking compound: micro-encapsulated

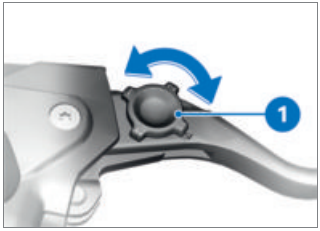
Peg to gearshift lever
10 Nm

BRAKES

Adjusting handbrake lever

WARNING

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



- Turn adjuster knob **1** to the desired position.

The adjuster is easier to turn if you push the brake lever forward.

» Adjustment options:
–Position 1: Narrowest span between handlebar grip and handbrake lever

– Position 4: Widest span between handlebar grip and handbrake lever

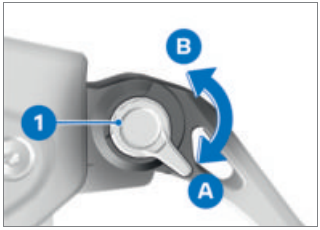
– with Option 719 Billet Pack Classic II [OE]

or

– with Option 719 Billet Pack Storm II [OE]

or

– with Option 719 Billet Pack Shadow II [OE]



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

» Adjustment options:

– From position **A**: Narrowest span between handlebar grip and handbrake lever.

– In 5 steps toward position **B** to increase the span between handlebar grip and handbrake lever.◁

Adjust the footbrake lever peg

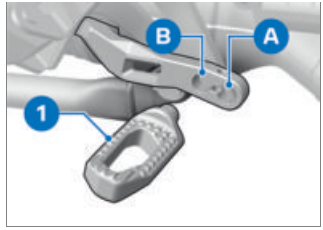
– with Option 719 Billet Pack Classic II [OE]

or

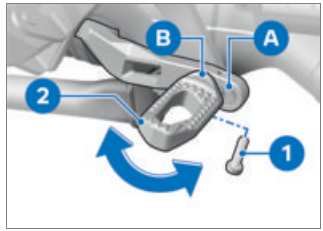
– with Option 719 Billet Pack Storm II [OE]

or

– with Option 719 Billet Pack Shadow II [OE]



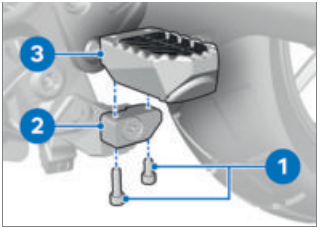
- Foot distance and height to peg **1** can be adjusted by turning through 180° and installation in position **A** or **B**.
- Remove screw **1**.



- Clean the threads.

- Install peg **2** in desired position **A** or **B**.
- Turn peg **2** to the desired position.
- Install **new** screw **1**.

	Peg to footbrake lever
M6 x 20	
Thread-locking compound: micro-encapsulated	
10 Nm	



- Remove screws **1**.
- Remove footrest **3** from clamping block **2**.

FOOTRESTS

–with Option 719 Billet Pack Classic II OE

or

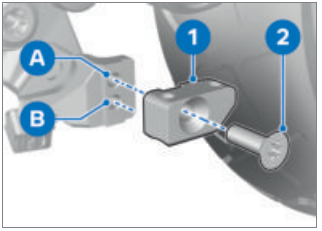
–with Option 719 Billet Pack Storm II OE

or

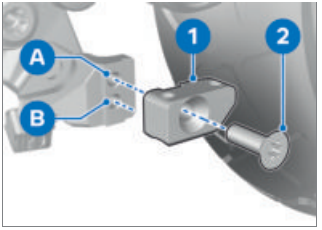
–with Option 719 Billet Pack Shadow II OE

Adjust the footrests

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

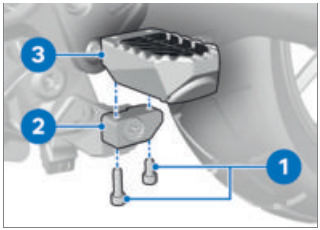


- Remove screw **2**.
- Remove clamping block **1**.



- Install clamping block **1** in required position **A** or **B** and tighten bolt **2**.

Clamping block on footrest hinge
M8 x 25
20 Nm



- Position footrest **3** on clamping block **2**.
- Install screws **1**.

Footrest on clamping block
M6 x 20 / M6 x 12
10 Nm

- Remove and refit the footrest on the other side in the same way.

HANDLEBARS

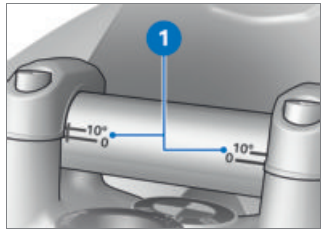
Adjustable handlebars

Have the handlebars adjusted by a specialist workshop, preferably an authorised BMW Motorrad retailer.

When adjusting the handlebars, make sure that the mirrors do not come into contact with the windscreen.
If necessary, adjust the mirror arm accordingly.

–with handlebar extension OE

Installing handlebar risers might restrict the free movement of cables and lines. If handlebar risers are installed, BMW Motorrad recommends setting the handlebars to the top position (**10°** mark).◁

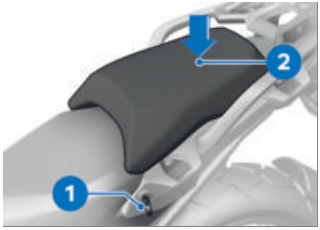


The tilt of the handlebars is adjustable within the range indicated by mark **1**.

SEATS

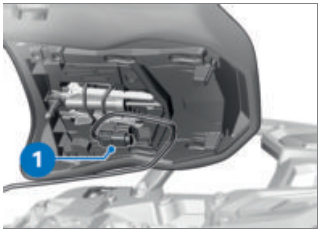
Removing passenger seat

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



- Turn ignition key **1** clockwise and hold it in this position, while pressing down on the rear part **2** of the passenger seat.
- Slightly raise the passenger seat at the front and release the ignition key.
- Rear seat position: Push the passenger seat forward.
- Front seat position: Push the passenger seat to the rear.

–with seat heating OE



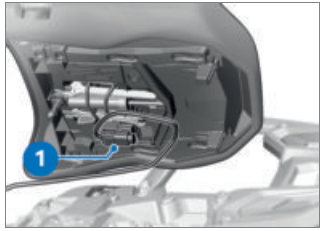
- Disconnect plug connection **1** of the seat heating.◁
- Place the passenger seat, upholstered side down, on a clean, dry surface.

Installing passenger seat

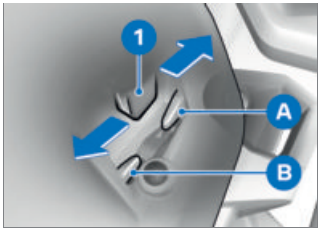
ATTENTION

Damaged components
Damage to sensors, for example, which causes malfunctions
- Do not transport any objects underneath the driver or passenger seat.
- Secure the toolkit.

–with seat heating OE



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



- Bear in mind the position of the rider's seat with regard to the direction for adjustment of the passenger seat.

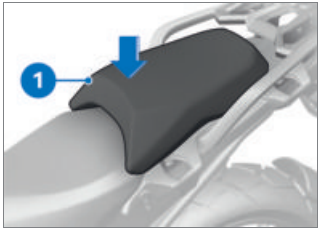
– The passenger seat can be set to either of 2 different positions.

- Set passenger seat with both lugs **1** centrally in the mounting.

– Rear seat position: Push the passenger seat to the rear **A**.

– Front seat position: Push the passenger seat forward **B**.

» Lugs **1** of the passenger seat are correctly located.

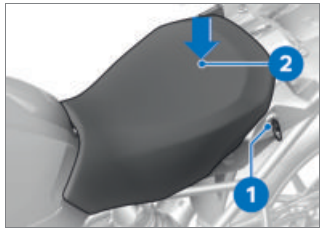


- Press down firmly on passenger seat **1** at the front.

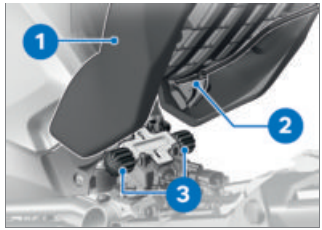
» The passenger seat engages with an audible click.

Removing rider's seat

- Remove the rear seat. (➠ 133)



- Turn ignition key **1** clockwise and hold it in this position, while pressing down on the rear part **2** of the rider's seat.
- Slightly raise the rider's seat at the rear and release the ignition key.



- Work rider's seat **1** to the rear to disengage it from seat retainer bridge **3** and remove.

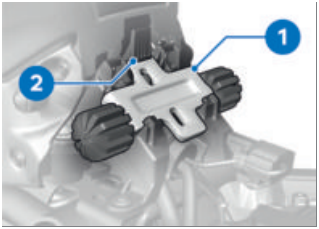
–with seat heating OE

- Disconnect plug connection **2** for the seat heating.◁

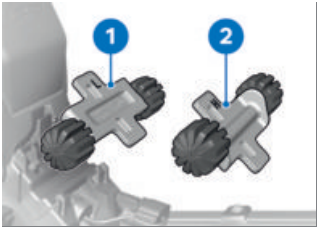
- Place the rider's seat, upholstered side down, on a clean, dry surface.

Adjust the height and angle of tilt of the rider's seat

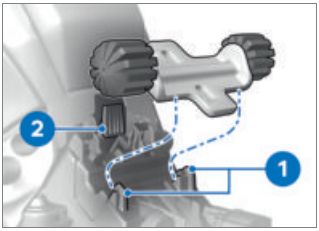
- Remove the front seat. (➠ 135)



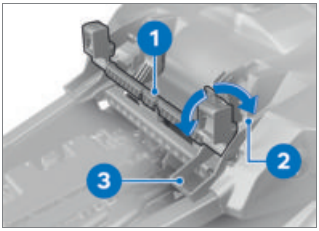
- To remove front height adjuster **1**, push locking mechanism **2** forward and lift out the height adjuster.



- To set the seat to the low position, install front height adjuster turned in direction **1** (**L** mark for "Low").
- To set the seat to the high position, install front height adjuster turned in direction **2** (**H** mark for "High").



- First push the front height adjustment under the mounting **1** then push it into the locking mechanism **2** until it engages.



- To set the seat to the low position, move rear height adjuster **1** to position **3** (**L** mark for "Low").
- To set the seat to the high position, move rear height

adjuster **1** to position **2** (**H** mark for "High").

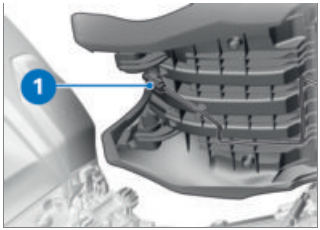
To change the angle of seat tilt:

- Position front and rear height adjusters differently.

Installing rider's seat

- Remove the rear seat. (➠ 133)
- Adjust the height and angle of tilt of the rider's seat. (➠ 136)

–with seat heating[OE]



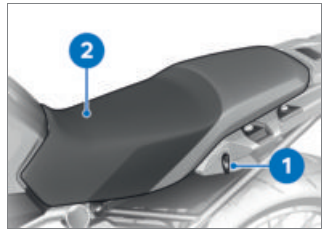
- Connect plug connection **1** of the seat heating.◁



- Engage the rider's seat in mounts **2** on left and right and lower it on to the motorcycle.
- Applying pressure to the rear of the seat, push the rider's seat slightly forward and then press it firmly down until the lock engages.

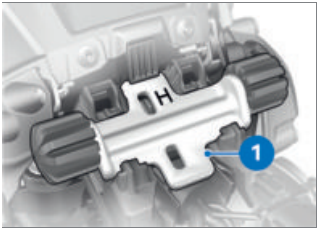
RALLYE SEAT

Removing Rallye seat

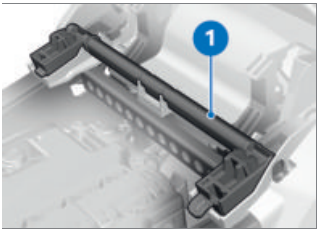


- Unlock seat lock **1** with the ignition key by turning the key clockwise and holding the key in this position.
- Lift seat **2** at the rear and release the ignition key.
- Remove the seat and place it, upholstered side down, on a clean surface.

Correctly positioning height adjusters



- Front height adjuster **1** must always be set to the high position (letter H).



- Rear height adjuster **1** must always be set to the low position (letter L).

Installing Rallye seat



- Engage Rallye seat **1** in mounts **2** on left and right, then apply pressure to the rear of the seat to push it forward and down until the lock engages with an audible click.

See the rider's manual of the vehicle for instructions on how to remove and install the seats with Comfort package optional equipment.

SPRING PRELOAD

–without Dynamic ESA OE

Adjustment

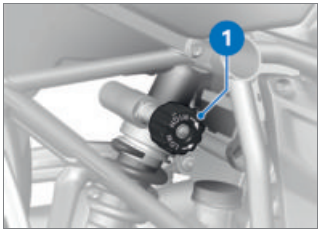
It is essential to set the spring preload of the rear suspension to suit the load carried by the motorcycle. Increase the spring preload when the vehicle is heavily loaded and reduce the spring preload accordingly when the vehicle is lightly loaded.

Adjusting spring preload for rear wheel

WARNING

Adjusting spring preload while riding.
Risk of accident
- Do not attempt to adjust spring preload unless the motorcycle is at a standstill.

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



WARNING

Spring preload setting and spring-strut damping setting not matched.
Impaired handling.
- Adjust spring-strut damping to suit spring preload.

- To increase spring preload, turn adjuster knob **1** in the direction indicated by the **HIGH** arrow.
- To reduce spring preload, turn adjuster knob **1** in the direction indicated by the **LOW** arrow.

Basic setting of spring preload, rear
Turn the adjuster as far as it will go in the **LOW** direction (One-up riding without luggage)
Turn the adjuster knob as far as it will go in the **LOW** direction, then back it off 15 turns in the **HIGH** direction (One-up with luggage)
Turn the adjuster knob as far as it will go in the **LOW** direction, then back it off 30 turns in the **HIGH** direction (Two-up with luggage)

DAMPING

–without Dynamic ESA[OE]

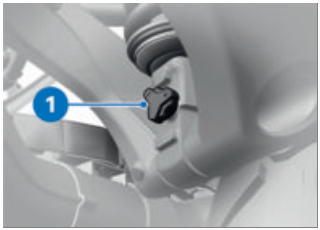
Setting

Damping must be adapted to suit the surface on which the motorcycle is ridden and to suit spring preload.

– An uneven surface requires softer damping than a smooth surface.
– An increase in spring preload requires firmer damping, a reduction in spring preload requires softer damping.

Adjusting damping for rear wheel

- Make sure the ground is level and firm and place the motorcycle on its stand.
- Set the damping from the left-hand vehicle side.



- Turn the adjusting screw **1** clockwise to harden the damping action.
- Turn the adjusting screw **1** anticlockwise to soften the damping action.

Basic setting of rear-suspension damping characteristic
Turn the knob as far as it will go in the clockwise direction, then back it off 8 clicks in the counter-clockwise direction (One-up riding without luggage)
Turn the knob as far as it will go in the clockwise direction, then back it off 2 clicks in the counter-clockwise direction (One-up with luggage)
Turn the knob as far as it will go in the clockwise direction, then back it off 2 clicks in the counter-clockwise direction (Two-up with luggage)

RIDING

07

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OFF-ROAD USE 152
SHIFTING GEAR 153
BRAKES 154
PARKING YOUR MOTORCYCLE 157
REFUELLING 158
SECURING MOTORCYCLE FOR TRANSPORTATION 163

SAFETY INFORMATION

Rider's equipment

Do not ride without the correct clothing! Always wear:
–Helmet
–Motorcycling jacket and trousers
–Gloves
–Boots

This applies even to short journeys, and to every season of the year. Your authorised BMW Motorrad dealer will be glad to advise you on the correct clothing for every purpose.

Restricted angle of heel

–with low-slung OE

A motorcycle with lowered suspension has less ground clearance and cannot corner at angles of heel as extreme as those achievable by a counterpart motorcycle with standard-height suspension.

WARNING

When a motorcycle with lowered suspension is cornering, certain components can come into contact with the surface at a bank angle less than that to which the rider is accustomed.
Risk of falling
- Carefully try out the limits of the motorcycle's bank angle and adapt your style of riding accordingly.

Test your motorcycle's angle of heel in situations that do not involve risk. When riding over kerbs and similar obstacles, bear in mind that your motorcycle's ground clearance is limited.

Lowering the motorcycle's suspension shortens suspension travel (see the section entitled "Technical data"). Ride comfort might be restricted as a result. Be sure to adjust spring preload accordingly, particularly for riding two-up.

Load

WARNING

Handling adversely affected by overloading and imbalanced loads
Risk of falling
- Do not exceed the permissible gross weight and be sure to comply with the instructions on loading.

- Adjusting spring preload setting and damping to the total weight.

–with case OA
- Ensure that the case volumes on the left and right are equal.
- Make sure that the weight is uniformly distributed between right and left.
- Pack heavy items at the bottom and toward the inboard side.
- Note the maximum permissible payload and maximum permissible speed, see also the section entitled "Accessories" (➠ 230).◁

–with topcase OA
- Note the maximum permissible payload and maximum permissible speed, see also the section entitled "Accessories" (➠ 234).◁

–with tank bag OA
- Note the maximum permissible payload of the tank bag.

Payload of tank rucksack
max 5 kg◁

Speed

If you ride at high speed, always bear in mind that various boundary conditions can adversely affect the handling of your motorcycle:
–Settings of the spring-strut and shock-absorber system
–Imbalanced load
–Loose clothing
–Insufficient tyre pressure
–Poor tyre tread
–Etc.

Maximum speed with knobbly tyres or winter tyres

DANGER

Maximum speed of the motorcycle is higher than the permissible maximum rated speed of the tyres
Risk of accident due to tyre damage at high speed
- Comply with the tyre-specific speed restrictions.

Always bear the maximum permissible speed of the tyres in

mind when riding a motorcycle fitted with knobbly tyres or winter tyres.
Affix a label stating the maximum permissible speed to the instrument panel in the rider's field of vision.

Risk of poisoning

Exhaust fumes contain carbon monoxide, which is colourless and odourless but highly toxic.

WARNING

Exhaust gases adversely affecting health

Risk of asphyxiation

- Do not inhale exhaust fumes.
- Do not run the engine in an enclosed space.

WARNING

Inhalation of harmful vapours

Health hazard

- Do not inhale vapours from operating fluid and plastics.
- Use the vehicle only outdoors.

Risk of burning

CAUTION

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

Risk of burn injury

- When you park the vehicle make sure that no-one and no objects can come into contact with the hot engine and exhaust system.

WARNING

Opening radiator cap

Risk of burning

- Do not open the radiator cap when the system is hot.
- Check and, if necessary, top up the coolant in the expansion tank only.

Catalytic converter

If misfiring causes unburned fuel to enter the catalytic converter, there is a danger of overheating and damage.
The following guidelines must be observed:

– Do not run the fuel tank dry.
– Do not attempt to start or run the engine with a spark-plug cap disconnected.

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

ATTENTION

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

Risk of overheating

ATTENTION

Engine running for prolonged period with vehicle at standstill
Overheating due to insufficient cooling; in extreme cases vehicle fire
• Do not allow the engine to idle unnecessarily.
• Ride away immediately after starting the engine.

Tampering

ATTENTION

Tampering with the motorcycle (e.g. engine management ECU, throttle valves, clutch)
Damage to the affected parts, failure of safety-relevant functions, voiding of warranty
• Do not tamper with the vehicle in any way that could result in tuned performance.

REGULAR CHECK

Comply with checklist
At regular intervals, use the checklist below to check your motorcycle.

Always before riding off
–Check operation of the brake system (➠ 193).
–Check operation of the lights and signalling equipment.
–Check operation of the clutch (➠ 198).
–Check the tyre tread depth (➠ 201).
–Check the tyre pressures (➠ 200).
–Check security of cases and luggage.

Every 3rd refuelling stop

–Check the engine oil level (➠ 191).
–Check the brake pad thickness, front brakes (➠ 194).
–Check the brake pad thickness, rear brakes (➠ 195).
–Check the brake-fluid level, front brakes (➠ 196).
–Check the brake-fluid level, rear brakes (➠ 197).
–Check the coolant level (➠ 198).

STARTING

Starting engine

- Switch on the ignition. (➠ 64)

» Pre-Ride-Check is performed. (➠ 149)
» ABS self-diagnosis is in progress. (➠ 149)
» DTC self-diagnosis is in progress. (➠ 150)

- Select neutral or, if a gear is engaged, pull the clutch lever.

You cannot start the motorcycle with the side stand extended and a gear engaged. The engine will switch itself off if you start it with the gearbox in neutral and then engage a gear before retracting the side stand.

- Cold starts and low temperatures: Pull the clutch lever.

–with M Lightweight battery OE

» Low temperatures can impact on the starting response. Repeated, brief application of load on the battery causes battery temperature to rise, so more battery power is available for starting the engine.◁



- Press starter button **1**.

» The engine starts.
» If the engine refuses to start, consult the troubleshooting chart in the section entitled "Technical data" (➠ 254)

Recharge the battery before you try again to start the engine, or use jump leads and a donor battery to start:

- Charge the battery when connected. (➠ 216)
- Jump-start. (➠ 214)

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

Pre-Ride-Check

The instrument cluster runs a test of the instruments and the indicator and warning lights when the ignition is switched on. This test is known as the Pre-Ride-Check. The test is aborted if you start the engine before it completes.

Phase 1

All indicator and warning lights are switched on.
After a longer vehicle standstill period, an animation is displayed when the system starts up.

Phase 2

The 'General' warning light changes from red to yellow.

Phase 3

All the indicator and warning lights switched on in the initial phase are switched off in reverse sequence.

The malfunction indicator lamp (MIL) does not go out until 15 seconds have elapsed.

If one of the indicator and warning lights did not switch on:

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

– with riding modes Pro OE

The intervention of riding dynamics control systems can be restricted, depending on which riding mode is selected and how the selected mode is configured.
Possible restrictions are indicated by a pop-up message, for example `Warning! ABS setting..`
The ABS indicator light flashes irregularly.
See the section entitled "Engineering details" for more information on riding dynamics control systems such as ABS.◁

ABS self-diagnosis

BMW Motorrad Integral ABS Pro performs self-diagnosis to ensure its operability. Self-diagnosis starts automatically when you switch on the ignition.

Phase 1

» Test of the diagnosis-compatible system components with the vehicle at a standstill.


flashes regularly.

Phase 2

» Test of the wheel-speed sensors as the vehicle pulls away from rest.

 flashes regularly.

ABS self-diagnosis completed

» The ABS indicator and warning light goes out.

ABS self-diagnosis not completed
The ABS function is not available, because self-diagnosis did not complete. (The motorcycle has to reach a defined minimum speed for the wheel speed sensors to be checked: 5 km/h)

If an indicator showing an ABS fault appears when ABS self-diagnosis completes:

- You can continue to ride. Bear in mind that neither the ABS function nor the integral braking function is available.
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad retailer.

DTC self-diagnosis

BMW Motorrad DTC performs self-diagnosis to ensure its operability. Self-diagnosis is performed automatically when you switch on the ignition.

Phase 1

» Test of the diagnosis-compatible system components with the vehicle at a standstill.

 slow-flashes.

Phase 2

» Pullaway test of the diagnosis-compatible system components.

 slow-flashes.

DTC self-diagnosis completed

» The DTC symbol no longer shows.

- Check all the indicator lights.

DTC self-diagnosis not completed
The DTC function is not available, because self-diagnosis did not complete. (The motorcycle has to reach a defined minimum speed with the engine running for the wheel-speed sensors to be checked: min 5 km/h)

If an indicator showing a DTC fault appears when DTC self-diagnosis completes:

- You can continue to ride. Bear in mind that the DTC function is not available or the functionality might be subject to certain restrictions.
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad retailer.

RUNNING IN

Engine

- Until the first running-in check, vary the throttle opening and engine-speed range frequently; avoid riding at constant engine rpm for prolonged periods.
- Try to do most of your riding during this initial period on twisting, fairly hilly roads.
- Comply with the running-in speeds.

 Running-in speeds
<5000 min^{-1} (Odometer reading 0...1000 km)
No full load (Odometer reading 0...1000 km)

- Note the mileage after which the running-in check should be carried out.

 Mileage until the running-in check
500...1200 km

Brake pads

New brake pads have to bed down before they can achieve their optimum friction levels. You can compensate for this initial reduction in braking efficiency by exerting greater pressure on the levers.

WARNING

New brake pads

Longer stopping distance, risk of accident

- Apply the brakes in good time.

Tyres

New tyres have a smooth surface. This must be roughened by riding in a restrained manner at various heel angles until the tyres are run in. This running in procedure is essential if the tyres are to achieve maximum grip.

WARNING

New tyres losing grip on wet roads and at extreme bank angles
Risk of accident
• Ride carefully and avoid extremely sharp inclines.

OFF-ROAD USE

For off-roading
Rims

ATTENTION

Off-roading more severe than riding on unsurfaced tracks
Damage to standard cast-aluminium rims
• Use the cross-spoked wheels available as optional extras for severe off-roading.

After off-roading
Tyre pressure

WARNING

Lower tyre pressure for off-roading in operation on smooth roads
Risk of accident due to impaired driving characteristics.
• Always check that the tyre pressures are correct.

Brakes

WARNING

Driving on unpaved or dirt roads
Delayed braking efficiency due to soiled brake disks and brake pads.
• Brake early until the brakes are clean.

ATTENTION

Riding on unsurfaced or dirty roads
Increased brake pad wear
• Check the thickness of the brake pads more frequently and replace the brake pads in good time.

Spring preload and shock-absorber settings

WARNING

Changed values for spring preload and spring strut damping for off-roading
Impaired driving characteristics on paved roads
- Before leaving the off-road terrain, set the correct spring preload and shock absorption.

Wheel rims

BMW Motorrad recommends checking the rims for damage after off-roading.

Air filter element

ATTENTION

Dirty air filter element
Engine damage
- If you ride in dusty terrain check the air filter element for clogging at shorter intervals; clean or replace as necessary.

Operation in very dusty conditions (desert, steppes, or the like) necessitates the use of air filter elements specially designed for conditions of this nature.

Rallye style variant

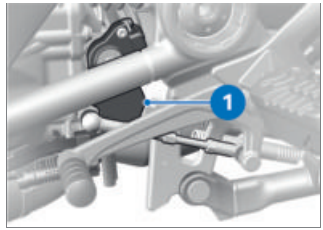
The Rallye style variant highlights the sporty character of the R 1250 GS as a machine designed and built for enhanced off-road performance. For more information on equipment and the supplementary manual, go to **bmw-motorrad.com/manuals**.

SHIFTING GEAR

–with shift assistant Pro[OE]

Gear Shift Assistant Pro

For safety reasons, adaptive cruise control is automatically deactivated when Gear Shift Assistant Pro downshifts.



- Select the gears in the usual way by using the foot-operated gearshift lever.

» The shift assistant assists upshifts and downshifts without the rider having to pull the clutch or close the throttle.

– This is not an automatic-shift system.
– The rider is the most important part of the system and decides when to shift gears.
– The sensor **1** on the gearshift shaft registers the gearshift request and triggers shift assistance.

» When riding at a steady speed in a low gear at high engine rpm, an attempt to shift gear without pulling the clutch can cause a severe load-change reaction.
– BMW Motorrad recommends disengaging the clutch for shifts in these circumstances.
– It is advisable to avoid using Gear Shift Assistant Pro at engine speeds close to the limits at which the governor cuts in to limit engine rpm.

» Shift assistance is not available in the following situations:
– With clutch lever pulled.
– Gearshift lever not in its initial position
– Upshifts with the throttle valve closed (engine overrun) and when slowing.
– Downshifts with throttle valve open and when accelerating.

• Once the gearshift has completed, the gearshift lever has to be fully released before another gearshift with the Pro can take place.
• For more information on Gear Shift Assistant Pro see the section headed "Engineering details" (➠ 182).

BRAKES

How can stopping distance be minimised?

Each time the brakes are applied, a load distribution shift takes place with the load shifting forward from the rear to the front wheel. The sharper the motorcycle decelerates, the more load is shifted to the front wheel. The higher the wheel load, the more braking force can be transmitted without the wheel locking.
To optimise stopping distance, apply the front brakes rapidly and keep on increasing the force you apply to the brake lever. This makes the best possible use of the dynamic increase in load at the front wheel. Remember to pull the clutch at the same time. In the "emergency braking situations" that are trained so frequently, braking force is applied as rapidly as possible and with the rider's full force applied to the

brake levers; under these circumstances the dynamic shift in load distribution cannot keep pace with the increase in deceleration and the tyres cannot transmit the full braking force to the surface of the road. BMW Motorrad Integral ABS Pro prevents the front wheel from locking up.

Emergency braking

If you brake sharply from a speed in excess of >50 km/h, the brake light flashes rapidly as a warning for road users behind you.

If you brake until your speed is less than <15 km/h, the hazard warning lights start to flash as well. The hazard warning lights switch off automatically as soon as you start to accelerate and vehicle speed reaches 20 km/h.

Descending mountain passes

WARNING

Braking mostly with the rear brake on mountain descents

Brake fade, destruction of the brakes due to overheating

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

Wet and dirty brakes

Wetness and dirt on the brake discs and the brake pads diminish braking efficiency. Delayed braking action or poor braking efficiency must be reckoned with in the following situations:

- Riding in the rain or through puddles of water.
- After the vehicle has been washed.
- Riding on salted or gritted roads.
- After work has been carried on the brakes, due to traces of oil or grease.
- Riding on dirt-covered surfaces or off-road.

WARNING

Wetness and dirt result in diminished braking efficiency

Risk of accident

- Apply the brakes lightly while riding to remove wetness and dirt, or dismount and clean the brakes.
- Think ahead and brake in good time until full braking efficiency is restored.

ABS Pro

Physical limits applicable to motorcycling

WARNING

Braking when cornering

Risk of crash despite ABS Pro

- Invariably, it remains the rider's responsibility to adapt riding style to riding conditions.
- Do not take risks that would negate the additional safety offered by this system.

ABS Pro and the assisting function of the Dynamic Brake Control are available in all riding modes except Enduro PRO.

Possibility of a fall not precluded

Although ABS Pro and Dynamic Brake Control provide the rider with valuable assistance and constitute a huge advance in safety for braking with the motorcycle banked for cornering, they cannot under any circumstances be considered as redefining the physical limits that apply to motorcycling. It is still possible for these limits to be overshot due to misjudgement or rider error. In extreme cases this can result in a crash.

Use on public roads

ABS Pro and Dynamic Brake Control help make the motorcycle even safer for riding on public roads. When the brakes are applied because of an unforeseen hazard when the motorcycle is banked for cornering, within the physical limits that apply to motorcycling the ABS Pro system prevents the wheels from locking and skidding away. In emergency braking, Dynamic Brake Control increases the braking effect and intervenes if the throttle grip is accidentally turned during braking.

ABS Pro was not developed to enhance individual braking performance with the motorcycle banked into corners.

PARKING YOUR MOTORCYCLE

Side stand

- Switch off the ignition. (➠ 65)

ATTENTION

Poor ground underneath the stand
Risk of damage to parts if vehicle topples
- Always check that the ground under the stand is level and firm.

ATTENTION

Additional weight placing strain on the side stand
Risk of damage to parts if vehicle topples
- Do not sit or lean on the vehicle while it is propped on the side stand.

- Extend the side stand and prop the motorcycle on the stand.
- Turn the handlebars all the way to left.
- On a gradient, the motorcycle should always face uphill; select 1st gear.

Centre stand

- Switch off the ignition. (➠ 65)

ATTENTION

Poor ground underneath the stand
Risk of damage to parts if vehicle topples
- Always check that the ground under the stand is level and firm.

ATTENTION

Centre stand retracts due to severe movements
Risk of damage to parts if vehicle topples
- Do not lean or sit on the vehicle with the centre stand extended.

- Extend the centre stand and lift the motorcycle on to the stand.
- On a gradient, the motorcycle should always face uphill; select 1st gear.

REFUELLING

Fuel grade

Requirement

For optimum fuel consumption, fuel should be sulphur-free or as low-sulphur as possible.

ATTENTION

Engine operation with leaded fuel

Damage to catalytic converter

- Do not attempt to run the vehicle on leaded fuel or fuel with metallic additives (e.g. manganese or iron).

- Observe the maximum ethanol content of the fuel.

Fuel additives clean the fuel injection system and the combustion zone. It is advisable to use fuel additives when the engine is operated with low-grade fuel or if the vehicle is to be out of use for a lengthy period of time. More information is available from your authorised BMW Motorrad retailer.

Recommended fuel grade
E5 E10 Super unleaded (max 15 % ethanol, E10/E15) 95 ROZ/RON 90 AKI
Alternative fuel grade
E5 E10 Normal unleaded (power- and consumption-related restrictions.) (max 15 % ethanol, E10/E15) 91 ROZ/RON 87 AKI

» Look for these symbols on the fuel filler cap and on the fuel pump:

E5

E10

» After refuelling with fuels of poor-quality, sporadic knocking noises may be perceptible.

Refuelling

WARNING

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

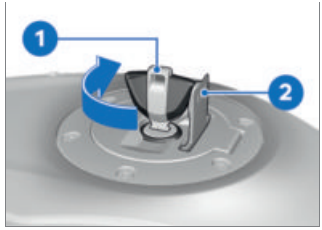
ATTENTION

Component damage
Component damage caused by overfilled fuel tank
- Overfilling the fuel tank will cause excess fuel to penetrate the carbon canister and cause component damage.
- Fill the fuel tank up to the lower edge of the filler neck only.

ATTENTION

Wetting of plastic surfaces by fuel
Damage to the surfaces (surfaces become unsightly or dull)
- Clean plastic surfaces immediately after contact with fuel.

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



- Open the protective cap **2**.
- Unlock the cap of the fuel tank by turning vehicle key **1** clockwise in the lock and pop the cap open.



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

When refuelling after running on reserve, make sure that you top up the tank to a level above reserve, so that the new level is detected and the fuel reserve indicator light is switched off.

The "usable fuel capacity" specified in the technical data is the quantity that the

fuel tank could hold if refilled after it had been run dry and the engine had cut out due to a lack of fuel.

 Usable fuel capacity
approx. 20 l

 Reserve fuel
approx. 4 l

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

Refuelling

–with Keyless Ride[OE]

Requirement

The steering lock is disengaged.

WARNING

Fuel is highly flammable

Risk of fire and explosion

- Do not smoke. Never bring a naked flame near the fuel tank.

WARNING

Escape of fuel due to heat-induced expansion if fuel tank is overfilled

Risk of falling

- Do not overfill the fuel tank.

ATTENTION

Wetting of plastic surfaces by fuel

Damage to the surfaces (surfaces become unsightly or dull)

- Clean plastic surfaces immediately after contact with fuel.

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

–with Keyless Ride[OE]

- Switch off the ignition. (➠ 67)

The fuel filler cap can be opened within the defined waiting time after the ignition has been switched off, without the radio-operated key being within range.

 Waiting time for opening the fuel filler cap
2 min

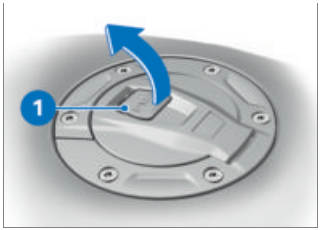
» There are **two variant ways** of opening the fuel filler cap:
– Within the waiting time.
– After the waiting time has expired.

Variant 1

– with Keyless Ride OE

Requirement

Within the waiting time



- Slowly pull tab **1** on the fuel filler cap up.
» Fuel filler cap unlocks.
- Fully open the fuel filler cap.

Variant 2

– with Keyless Ride OE

Requirement

After the waiting time has expired

- Bring the radio-operated key into range.
- Slowly pull tab **1** up.
» The indicator light for the radio-operated key flashes while the search for the radio-operated key is in progress.
- Slowly pull tab **1** on the fuel filler cap up again.
» Fuel filler cap unlocks.
- Fully open the fuel filler cap.



- Refuel with fuel of the grade stated above; do not fill the tank past the bottom edge of the filler neck.

When refuelling after running on reserve, make sure that you top up the tank to a level above reserve, so that the new level is detected and the fuel reserve indicator light is switched off.

The "usable fuel capacity" specified in the technical data is the quantity that the fuel tank could hold if refilled after it had been run dry and the engine had cut out due to a lack of fuel.

Usable fuel capacity
approx. 20 l

Reserve fuel
approx. 4 l

- Press down firmly on the filler cap of the fuel tank.

» The fuel filler cap engages with an audible click.

» The fuel filler cap locks automatically when the waiting time expires.

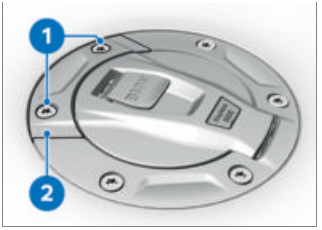
» The engaged fuel filler cap locks immediately when you secure the steering lock or switch on the ignition.

Opening fuel filler cap emergency release

–with Keyless Ride OE

Fuel filler cap cannot be opened.

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



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

» Fuel filler cap unlocks.

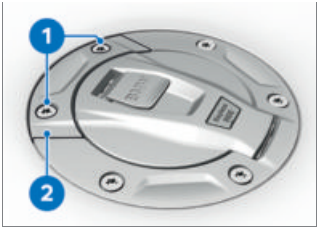
- Fully open the fuel filler cap.
- Refuel. (➠ 160)
- Close the fuel filler cap emergency release. (➠ 162)

Closing fuel filler cap emergency release

–with Keyless Ride OE

Requirement

Fuel filler cap is in closed position.



- Hold emergency release **2** in position.
- Install screws **1**.

SECURING MOTORCYCLE FOR TRANSPORTATION

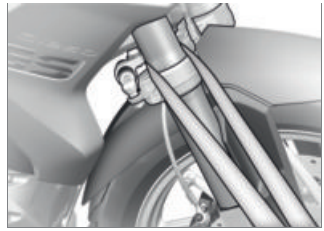
- Make sure that all components that might come into contact with straps used to secure the motorcycle are adequately protected against scratching. Use adhesive tape or soft cloths, for example, for this purpose.



ATTENTION

Vehicle topples to side when being lifted on to stand
Risk of damage to parts if vehicle topples
- Secure the vehicle to prevent it toppling, preferably with the assistance of a second person.

- Push the motorcycle on to the transportation flat and hold it in position: do not place it on the side stand or centre stand.



ATTENTION

Trapping of components
Component damage
- Do not trap components such as brake lines or cable legs.

- Pass the straps on left and right through the fork bridge and strap the motorcycle down.



- At the rear, secure the straps to the holders for the passenger footrests on both sides and tighten the straps.

- Tension all the straps uniformly to hold the vehicle securely.

ENGINEERING DETAILS

08

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GENERAL NOTES

To find out more about engineering, go to **bmw-motorrad.com/technik**.

ANTILOCK BRAKE SYSTEM (ABS)

Partially integral brakes

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

When actively intervening in the braking process, BMW Motorrad Integral ABS Pro adapts braking-force distribution between front and rear brakes to suit the load on the motorcycle.

ATTENTION

Attempted burn-out despite Integral braking function

Damage to rear brake and clutch

- Do not burn out tyres.

How does ABS work?

The amount of braking force that can be transferred to the road depends on factors that include the coefficient of friction of the road surface. Loose stones, ice and snow or a wet road all have much lower coefficients of friction than a clean and dry asphalt surface. The lower the coefficient of friction, the longer the braking distance. If the rider increases braking pressure to the extent that braking force exceeds the maximum transferable limit, the wheels start to lock and the vehicle loses its directional stability; a fall is imminent. Before this situation occurs the ABS will be activated and the brake pressure adapted to the maximally transferable braking force. The wheels continue to turn and the driving stability is retained irrespective of the road condition.

What are the effects of surface irregularities?

Humps and surface irregularities can cause the wheels to lose contact temporarily with the road surface; if this happens the braking force that can be transmitted to the road can drop to zero. If

the brakes are applied under these circumstances the ABS has to reduce braking force to ensure that directional stability is maintained when the wheels regain contact with the road surface. At this instant the BMW Motorrad Integral ABS Pro must assume an extremely low coefficient of friction (gravel, ice, snow), so that the wheels will continue to rotate under all imaginable circumstances, because this is the precondition for ensuring directional stability. As soon as is registers the actual circumstances, the system reacts instantly and adjusts braking force accordingly to achieve optimum braking.

What feedback does the rider receive from the BMW Motorrad Integral ABS Pro?

If the ABS system has to reduce braking force on account of the circumstances described above, vibration is perceptible through the handbrake lever. When the handbrake lever is pulled, brake pressure is also built up at the rear wheel by the integral function. If the brake pedal is depressed after the handbrake lever is pulled, the brake pressure built up beforehand is perceptible as counter-pressure sooner than is the case when the brake pedal is depressed either before or at the same time as the brake lever is pulled.

Rear wheel lift

Under very severe and sudden deceleration, however, under certain circumstances it is possible that the BMW Motorrad Integral ABS Pro will be unable to prevent the rear wheel from lifting clear of the ground. If this happens the outcome can be a highsiding situation in which the motorcycle can flip over.

WARNING

Rear wheel lift due to severe braking

Risk of falling

- When you brake sharply, bear in mind that ABS control cannot always be relied on to prevent the rear wheel from lifting clear of the ground.

What is the design baseline for BMW Motorrad Integral ABS Pro?

Within the limits imposed by physics, BMW Motorrad Integral ABS Pro ensures directional stability on any surface. The system is not optimised for special requirements that apply under extreme competitive conditions off-road or on the track. The driving behaviour should be adapted to actual driving skills and the road conditions.

Special situations

The speeds of the front and rear wheels are compared as one means of detecting a wheel's incipient tendency to lock. If the system registers implausible values for a lengthy period the ABS function is deactivated for safety reasons and an ABS fault message is issued. Self-diagnosis has to complete before fault messages can be issued.
In addition to problems with the BMW Motorrad ABS, exceptional riding conditions can also cause a fault message to be issued:

– Heating up with the motorcycle on the centre stand or an auxiliary stand, engine idling or with a gear engaged.
– Rear wheel locked by the engine brake for a lengthy period, for example while descending on a loose or slippery surface.

If a fault message is issued on account of exceptional riding conditions, you can reactivate the ABS function by switching the ignition off and on again.

What significance devolves on regular maintenance?

WARNING

Brake system not regularly serviced.
Risk of accident
- In order to ensure that the ABS is always maintained in optimum condition, it is essential for you to comply strictly with the specified inspection intervals.

Safety reserves

The potentially shorter braking distances which BMW Motorrad Integral ABS Pro permits must not be used as an excuse for careless riding. The system is

primarily a means of ensuring a safety margin in genuine emergencies.

WARNING

Braking when cornering
Risk of accident despite ABS
- Invariably, the rider bears responsibility for assessing road and traffic conditions and adopting his or her style of riding accordingly.
- Do not take risks that would negate the additional margin of safety offered by this system.

Evolution of ABS to ABS Pro

Until now, the BMW Motorrad ABS helped ensure a very high degree of safety for braking with the motorcycle upright and travelling in a straight line. Now ABS Pro offers enhanced safety for braking in corners as well. ABS Pro prevents the wheels from locking even under sharp braking. ABS Pro reduces abrupt changes in steering force, particularly in panic-braking situations, counteracting the vehicle's otherwise natural but undesirable tendency to straighten up.

ABS intervention

Technically speaking, depending on the riding situation ABS Pro adapts ABS intervention to the motorcycle's bank angle. Signals for rate of roll and rate of yaw and lateral acceleration are used to calculate bank angle.
As the motorcycle is heeled over more and more as it banks into a corner, an increasingly strict limit is imposed on the brake-pressure gradient for the start of brake application. This slows the build-up of brake pressure to a corresponding degree. Additionally, pressure modulation is more uniform across the range of ABS intervention.

Advantages for the rider

The advantages of ABS Pro for the rider are sensitive response and high braking and directional stability combined with best-case deceleration of the motorcycle, even when cornering.

DYNAMIC TRACTION CONTROL (DTC)

How does traction control work?

Traction control compares the front and rear wheel circumferential velocities. The differential is used to compute slip as a measure of the reserves of stability available at the rear wheel. If slip exceeds a certain limit, the electrical machine management system intervenes and adapts torque accordingly. Dynamic Traction Control (DTC) takes bank angle into consideration and on account of this additional bank-angle and acceleration data, its intervention is more precise and more comfortable for the rider.

BMW Motorrad DTC is designed as an assistant system for the rider and for use on public roads. The extent to which the rider affects DTC control can be considerable (weight shifts when cornering, items of luggage loose on the vehicle), especially when the style of riding takes rider and machine close to the limits imposed by physics.

Activate ENDURO riding mode for off-roading. This mode delays DTC intervention slightly in order to permit controlled drifting.

The system is not optimised for special requirements that apply under extreme competitive conditions off-road or on the track. The BMW Motorrad DTC can be deactivated in these cases.

WARNING

Risky riding

Risk of accident despite DTC

- Invariably, the rider bears responsibility for assessing road and traffic conditions and adopting his or her style of riding accordingly.
- Do not take risks that would negate the additional safety offered by this system.

Special situations

In accordance with the laws of physics, the ability to accelerate is restricted more and more as the angle of heel increases. Consequently, there can be a perceptible reduction in acceleration out of very tight bends.

If the electronic processor receives values for the bank angle that it considers implausible over a lengthy period, a dummy value is used for the bank angle or the DTC function is switched off. Under these circumstances the indicator for a DTC fault shows. Self-diagnosis has to complete before fault messages can be issued.
The BMW Motorrad Traction Control can shut down automatically under the exceptional riding conditions outlined below.

Exceptional riding conditions:

- Riding for a lengthy period with the front wheel lifted off the ground (wheelie).
- Rear wheel rotating with the vehicle held stationary by application of the front brake (burn-out).
- Heating up with the motorcycle on an auxiliary stand, in neutral or with a gear engaged.

If the front wheel lifts clear of the ground under severe acceleration, the DTC reduces engine torque in the RAIN and ROAD riding modes until the front wheel regains contact with the ground.
In the DTC settings DYNAMIC and ENDURO, front wheel lift-off detection allows short wheelies.
In the DTC settings DYNAMIC PRO and ENDURO PRO, front-wheel lift-off detection is switched off.
The ENDURO and ENDURO PRO riding modes are set up for off-road riding and are not suitable for on-road riding.
In ECO riding mode, the DTC setting corresponds to the ROAD riding mode.
in RAIN, ROAD, DYNAMIC, DYNAMIC PRO, ENDURO and ENDURO PRO riding modes, the DTC setting corresponds to the riding mode.
In DYNAMIC PRO and ENDURO PRO riding modes, DTC can be set up differently (➠ 86).
BMW Motorrad recommends turning the throttle grip back slightly when lifting the front wheel in order to reach a stable driving condition again as soon as possible.

When riding on a slippery surface, never snap the throttle twistgrip fully closed without pulling the clutch at the same time. Engine braking torque can cause the rear wheel to skid, with a corresponding loss of stability. The BMW Motorrad DTC is unable to control a situation of this nature. With dynamic engine brake control, this loss of stability can be prevented.

DYNAMIC ENGINE BRAKE CONTROL (MSR)

–with riding modes Pro[OE]

How does dynamic engine brake control work?

The purpose of dynamic engine brake control is to prevent the unstable riding states that can be produced by excessive engine braking moment acting on the rear wheel. Depending on the road condition and riding dynamic, excessive braking torque can produce a sharp rise in rear-wheel slip and impair directional stability. Dynamic engine brake control limits this slip at the rear wheel to a safe mode-dependent and bank-angle-dependent regulated slip.

Causes for excessive slip at the rear wheel:

–Riding with engine overrun on a surface with a low coefficient of friction (e.g. wet leaves).
–Rear-wheel hop when rider downshifts.
–Sharp braking during sporty riding.

In the same way as DTC traction control, dynamic engine brake control compares the wheel circumferential velocities of the front and rear wheels. Additional information on the bank angle enables dynamic engine brake control to calculate slip and the reserve of stability at the rear wheel.
If slip overshoots the applicable limit, the throttle valves are opened very slightly to increase engine torque. Slip is reduced and the vehicle is stabilised.

Effect of dynamic engine brake control

–In ECO, RAIN and ROAD riding modes: Maximum stability.
–In DYNAMIC and DYNAMIC PRO riding modes: High stability.
–In ENDURO riding mode: Minimum stability.

– in ENDURO PRO riding mode, dynamic engine brake control is inactive.

DYNAMIC ESA

– with Dynamic ESA OE

Riding position equaliser

Dynamic ESA is an electronic system that enables your motorcycle's suspension to adjust automatically to suit the load the vehicle is carrying. When spring preload is set to `Auto`, the rider does not have to adjust the suspension to suit the load.

When driving off and when riding, the system monitors the suspension on the rear wheel and corrects the spring preload in order to set the riding position correctly. The damping is also adjusted automatically to the load.

By interpreting ride height sensor signals, Dynamic ESA detects movements in the suspension and responds by adjusting the damper valves. This enables the suspension to adapt to the terrain.

Dynamic ESA calibrates itself at regular intervals to ensure the system functions correctly.

Possibilities for adjustment

Damping modes

– Road: Damping for comfortable on-road riding
– Dynamic: Damping for dynamic on-road riding
– Enduro: Damping for off-road riding

Load settings

– Auto: Active ride compensation with automatic adjustment of spring preload and damping
– Min: Minimum spring preload
– Max: Maximum spring preload (for off-road use)
– The Min and Max spring preloads can be selected by the rider but not changed. The ride compensation function is inactive in the Min and Max settings.

RIDING MODE

Selection

To adjust the motorcycle to the road condition and the desired driving experience, the following riding modes can be selected:

– ECO
– RAIN
– ROAD (default mode)

–with riding modes Pro OE
–ENDURO
–DYNAMIC
–ENDURO PRO
–DYNAMIC PRO

With the Riding modes Pro option installed, the ROAD, RAIN, ECO and ENDURO riding modes are activated by default. The other riding modes can be selected in the riding modes preselection. A maximum of four riding modes can be preselected at any given time.

For each of these riding modes, there is a matching setting for the DTC, ABS and MSR systems and for the engine characteristic.

–with Dynamic ESA OE
The adjustment of the Dynamic ESA also depends on the riding mode selected.

DTC can be switched off in each riding mode. The explanations below always refer to the dynamic safety systems that are switched on.

Throttle response

–In ECO riding mode: Very restrained
–In RAIN and ENDURO riding modes: Restrained
–In ROAD and ENDURO PRO riding modes: Optimum
–In DYNAMIC and DYNAMIC PRO riding modes: Direct
–In DYNAMIC PRO and ENDURO PRO riding modes, throttle response can be set up differently in SETUP (➠ 82).

ABS

Adjustment

–In ROAD, DYNAMIC, ENDURO and ENDURO PRO riding modes, the ABS setting corresponds to the individual riding mode.
–In ECO and RAIN riding modes, the ABS setting corresponds to the ROAD riding mode.
–In DYNAMIC PRO riding mode, the ABS setting corresponds to the DYNAMIC riding mode.
–In DYNAMIC PRO and ENDURO PRO riding modes, the ABS can be set up differently via SETUP (➠ 86).

Tuning setup

–In ECO, RAIN, ROAD, DYNAMIC and DYNAMIC PRO riding modes, the ABS is set up for on-road riding.

– In ENDURO riding mode, the ABS is set up for off-road riding with road tyres.
– In ENDURO PRO riding mode, there is no ABS control at the rear wheel when the foot-brake lever is operated. The ABS is set up for off-road riding with cleated tyres.

Rear-wheel lift-off detection

– In ECO, RAIN, ROAD and ENDURO riding modes, the rider has maximum assistance from rear-wheel lift-off detection.
– In DYNAMIC and DYNAMIC PRO riding modes, rear-wheel lift-off detection offers reduced assistance and allows slight lift-off of the rear wheel.
– Rear wheel lift-off detection is inactive in ENDURO PRO riding mode.

ABS Pro

– In ECO, RAIN and ROAD riding modes, ABS Pro is fully available.
– In DYNAMIC, DYNAMIC PRO and ENDURO riding modes, ABS Pro assistance is reduced by comparison with ECO, RAIN and ROAD riding modes.
– In the ABS setting DYNAMIC PRO, ABS Pro is not available.
– In the ABS setting ENDURO PRO, ABS Pro is not available. It can be switched on by changing to the ABS setting ENDURO.

DTC

Tyres

– In the DTC settings RAIN, ROAD and DYNAMIC, DTC is set up for on-road riding with road tyres.
– In the DTC setting ENDURO, DTC is set up for off-road riding with road tyres.
– In the DTC setting ENDURO PRO, DTC is set up for off-road riding with cleated tyres.

Riding stability

– In the DTC setting RAIN, DTC intervenes early enough to achieve maximum riding stability.
– In the DTC settings of the ECO and ROAD riding modes, DTC intervenes later than in RAIN riding mode. This prevents the rear wheel from spinning whenever possible.
– In the DTC settings ECO, RAIN and ROAD, the front wheel is prevented from lifting off.
– In the DTC setting DYNAMIC, DTC intervenes later than in the DTC setting ROAD, so

slight drift can be induced when exiting corners and brief wheelies are also possible.
– In the DTC setting ENDURO, DTC intervenes even later than in the other modes and the set-up is for off-road riding, so lengthy drifts and short wheelies when exiting corners are possible.
– In the DTC setting ENDURO PRO, DTC control assumes that the vehicle is being ridden off-road and is fitted with cleated tyres. Front wheel lift-off detection is switched off, so that wheelies of any length and angle are possible. In extreme cases, the vehicle can flip over backwards!

In RAIN, ROAD, DYNAMIC and ENDURO riding modes, the DTC setting corresponds to the riding mode.
In the ENDURO PRO and DYNAMIC PRO riding modes, DTC can be set up differently (➠ 86).

Mode changes
The riding mode can be changed while the vehicle is stationary with the ignition on. Under the following precondition, it is also possible to change modes while riding:
– No drive torque on the rear wheel.
– No brake pressure in the brake system.

The following steps must be taken to change the riding mode:
– Close the throttle twistgrip.
– Release the brake levers.
– Deactivate adaptive cruise control.

The desired riding mode is initially preselected. The mode change does not take place until the systems in question are all in the appropriate state. The selection menu does not disappear from the display until the mode change has taken place.

ECO mode
ShiftCam technology is the bridge-builder between ultra-high dynamism and maximum efficiency. The full-load cams allow full valve lift for maximum combustion-chamber charge

and high power, whereas the part-load cams considerably shorten the lift of the intake valves and open the valves to different extents. Charge-cycle losses are lessened by de-throttling, friction is reduced, the mixture is swirled more vigorously and combusted more effectively, fuel consumption goes down.
The ECO mode assists the rider with ECO indicator and engine characteristic (parametrisation of the electromotive throttle controller) to keep the engine in the operating range of the consumption-oriented part-load cam, so as to maximise the distance travelled with a given quantity of fuel.
The length of the green bar in the ECO indicator in the TFT display visualises whether the drive is operating in the consumption-optimised range of the part-load cam and the margin from the switch-over threshold to full-load cam operation. The length of the bar represents the load reserve left before the switch-over point for full-load cam operation is reached. The colour changes to grey when load requirement increases and the engine switches to the full-load cam. The reading shown by the ECO indicator varies depending on the gear selected by the rider, the load requirement input via the throttle grip, and engine rpm. Even outside the operating range of the part-load cam, when the bar is grey, the ECO offers benefits for an economical style of riding by reducing maximum available torque and peak power.

Because of the reduced acceleration ability in ECO mode, changing to a different riding mode is recommended prior to critical overtaking manoeuvres with the motorcycle heavily loaded or when riding two-up.

Rider can further reduce consumption by riding with fuel economy in mind (➠ 185).

DYNAMIC BRAKE CONTROL

–with riding modes Pro[OE]

How Dynamic Brake Control works

The Dynamic Brake Control function is active in all riding modes. It can be deactivated in the DYNAMIC PRO and ENDURO PRO

riding modes only, by custom parametrisation of the ABS.

The Dynamic Brake Control function assists the rider in emergency braking situations.

Detection of emergency braking

– Sudden, sharp application of the front brake is interpreted as emergency braking.

Behaviour in emergency braking

– If emergency braking occurs at a speed in excess of min 10 km/h, the ABS function is further assisted by Dynamic Brake Control.
– When partially integral braking at a high brake pressure gradient is initiated, Dynamic Brake Control increases the integral brake pressure at the rear wheel. The stopping distance shortens and controlled braking is possible.

Behaviour during accidental actuation of the throttle grip

– If the throttle is accidentally opened (throttle grip position > 5 %) during emergency braking, Dynamic Brake Control ensures the desired braking effect by ignoring actuation of the throttle grip. The effectiveness of emergency braking is ensured.
– If the throttle is closed (throttle grip position < 5 %) while Dynamic Brake Control is in action, the engine torque requested by the ABS brake system is restored.
– If emergency braking ceases and the rider still has not changed the position of the throttle grip, Dynamic Brake Control steadily ramps engine torque back to the rider's requested level.

TYRE PRESSURE CONTROL (RDC)

– with tyre pressure control (RDC) OE

Function

A sensor integrated into each tyre measures the air temperature and the air pressure inside the tyre and transmits this information to the control unit. The sensors are fitted with a centrifugal-force tripswitch which allows the measured values to be transmitted after the minimum speed is exceeded the first time.

 Minimum speed for transmission of the RDC measured values:
min 30 km/h

The display shows –– for each tyre until the tyre-pressure signal is received for the first time. The sensors continue to transmit the measured-value signals for some time after the vehicle comes to a stop.

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

An error message is issued if wheels without sensors are fitted to a vehicle equipped with an RDC control unit.

Tyre pressure ranges

The RDC control unit distinguishes between three tyre pressure ranges matched to the vehicle:

– Filling pressure within the permissible tolerance
– Filling pressure in the limit range of the permissible tolerance
– Filling pressure outside permitted tolerance

Temperature compensation

Tyre pressure is a temperature-sensitive variable: pressure increases as tyre-air temperature rises and decreases as tyre-air temperature drops. Tyre air temperature depends on ambient temperature as well as on the style of riding and the duration of the ride.

The tyre-pressure readings in the multifunction display are temperature-compensated and are always referenced to a tyre-air temperature of 20 °C.

The air lines available to the public in petrol stations and motorway service areas have gauges that do not compensate for temperature; the reading shown by a gauge of this nature is the temperature-dependent tyre-air pressure. As a result, the values displayed there usually do not correspond to the values displayed in the display.

Pressure adaptation

Compare the RDC value on the TFT display with the value in the table on the back cover of the Rider's Manual. Then use the air-line gauge at a service station to compensate for the difference between the RDC

reading and the value in the table.

 Example
According to the rider's manual, the tyre pressure should be the following value:
2.5 bar
The following display is shown in the TFT display:
2.3 bar
Missing:
0.2 bar
The tester on the filling station shows:
2.4 bar
The tyre pressure must be increased to the following value to reach the correct tyre pressure:
2.6 bar

GEAR SHIFT ASSISTANT

–with shift assistant Pro OE

Gear Shift Assistant Pro

Your vehicle is equipped with Gear Shift Assistant Pro, a system originally developed for racing and now adapted for the touring sector. It permits upshifts and downshifts without declutching or closing the throttle in virtually all load and rpm ranges.

Advantages

–70-80 % of all gearshifts on a trip can be done without using the clutch.
–Less relative movement between rider and passenger because the shift pauses are shorter.
–It is not necessary to close the throttle valve when shifting under acceleration.
–When braking and downshifting (throttle valve closed), engine speed is adjusted by blipping the throttle.
–Shift time is shorter than a gearshift with clutch actuation.

In order for the system to identify a request for a gearshift, the rider has to move the shift lever from its idle position in the desired direction against the force of the spring through a certain "overtravel" at ordinary speed or rapidly and keep the shift lever in this position until the gearshift is completed. It is not necessary to increase the force applied to the gearshift lever while shifting is in progress. Once the gearshift has completed

the shift lever has to be fully released before another gearshift with the Pro shift assistant can take place. When shifting gears with the Gear Shift Assistant Pro, the rider has to keep load state (throttle twistgrip position) constant before and during the gearshift. A change in the position of the throttle twistgrip during a gearshift can cause the function to abort and/or lead to a missed shift. Gear Shift Assistant Pro provides no assistance for the gearshift if the rider declutches.

Downshifting

– Downshifting is assisted until maximum rpm for the target gear to be selected is reached. This prevents overrevving.

 Maximum engine speed
max 9000 min^{-1}

Upshifting

– Upshifting is only possible when the current speed is higher than the respective release threshold of the next higher gear.
– This prevents the engine from dropping below idle speed.

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

 Release thresholds
1st gear
min 1350 min^{-1}
2nd gear
min 1400 min^{-1}
3rd gear
min 1450 min^{-1}
4th gear
min 1500 min^{-1}
5th gear
min 1550 min^{-1}
6th gear
min 1600 min^{-1}

HILL START CONTROL

Hill Start Control function

Hill Start Control is a pullaway assistant that operates on the partially integral ABS system to prevent the vehicle from rolling back on a gradient, without the rider having to keep pressure applied to the brake lever. When Hill Start Control is activated, pressure is built up in the rear brake system to keep the machine at a standstill on a gradient.

The brake pressure in the brake system is dependent on the gradient.

Effect of an incline on brake pressure and drive-off behaviour

– If the motorcycle is stopped on a gentle incline, only low brake pressure is built up. In this case, the brakes are quickly released when driving off. The motorcycle can be moved off more gently. It is not necessary to turn the throttle grip again.
– If the motorcycle is stopped on a steep incline, high brake pressure is built up. In this case, the brakes take longer to release when driving off. More torque is required for driving off which also requires the rider to turn the throttle grip again.

Behaviour when the motorcycle rolls or slips

– If the vehicle starts to roll while Hill Start Control is active, brake pressure is increased.
– If the rear wheel slips, the brake is released again after approx. 1 m. This prevents the vehicle slipping with a locked rear wheel, for example.

Brake release when engine is stopped or after time-out

Hill Start Control is deactivated if the rider stops the engine by hitting the emergency-off switch (kill switch) or when the side stand is extended, or after time-out (10 minutes).
In addition to the indicator and warning lights, the rider should be made aware that Hill Start Control has been deactivated by the following behaviour:

Brake warning jolt

– The brake is released briefly and reactivated immediately.
– This creates a jolt which the rider feels.
– The partial integral ABS brake system limits the speed of movement to approx. 1...2 km/h.
– The rider must brake the motorcycle manually.
– After two minutes, or when the brake is actuated, Hill Start Control is completely deactivated.

The holding pressure is released immediately without a brake warning jolt as

soon as the ignition is switched off.

SHIFTCAM

Functional principle of ShiftCam

The vehicle features BMW ShiftCam technology for varying valve timing and valve lift on the intake side. The heart of this technology is a one-piece shifting intake camshaft that has two lobes for each valve: a partial-load cam and a full-load cam. The partial-load cam is fine-tuned for consumption optimisation and engine smoothness. As well as adapting valve timing, the partial-load cam also reduces intake-valve lift. With the partial-load cams activated, moreover, the lobes for the cylinder's left and right intake valves produce staggered valve lift and offset angles of rotation. Consequently the two intake valves open at very slightly different times and the distance to which they open also differs. The advantage: The fuel/air mixture flowing into the combustion chamber is swirled more thoroughly and combusted effectively - so all in all the fuel is utilised more efficiently and engine operation is perceptibly smoother. The full-load cam is designed for optimised engine power and it maximises intake valve lift. The intake camshaft is shifted axially to vary valve timing and valve lift. The pins of an electromechanical actuator engage a shift gate on the intake camshaft. This permits load-dependent and speed-dependent actuation of the intake valves and, consequently, a no-compromises combination of performance and low fuel consumption.

ADAPTIVE HEADLIGHT

–with adaptive head light OE

How does the adaptive cornering headlight work?

The low-beam unit installed as standard in the headlight consists of two reflectors that produce a low beam from an LED light source. Ride height sensors on front and rear suspension supply data for permanent beam throw adjustment. While the motorcycle is moving straight ahead, pitch compensation keeps the throw of the headlight beam constantly in the optimum, preset range, regardless of

ride and load state. With the Adaptive headlight function, the low-beam unit is additionally rotated about an axis to a degree that varies with the bank angle, compensating for the vehicle's angle of lean. The angle of rotation is 70° (± 35°). Along with pitch compensation, therefore, the throw of the low-beam headlight also compensates for the rider's chosen bank angle through corners. The two movements are superimposed, so as the motorcycle is steered through a bend the headlight beam is directed into the bend for better illumination of the road ahead. The results are considerably better illumination of the road ahead when the vehicle corners, and a huge increase in active riding safety.

MAINTENANCE

09

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GENERAL NOTES

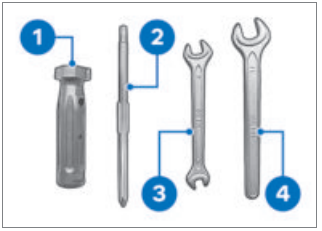
The Maintenance chapter describes straightforward procedures for checking and replacing certain wear parts.
Special tightening torques are listed as applicable. The tightening torques for the threaded fasteners on your vehicle are listed in the section entitled "Technical data".

Microencapsulated screws

The microencapsulation is a chemical thread-locker. An adhesive compound creates a secure connection between bolt and nut or between screw and component. Consequently, microencapsulated screws are for once-only use and are not intended for re-installation after being slackened.
After removal of the screw, clean the internal thread to remove all traces of thread-locking compound. Always use new microencapsulated screws when re-assembling. Consequently, prior to disassembly make sure that you have suitable tools for cleaning the threads and a new replacement for each screw to be removed. If the job is not done correctly there is no guarantee that the screw will remain secure, which means that you would be putting yourself at risk!

Some of the work calls for special tools and a thorough knowledge of the technology involved. If you are in doubt, consult a specialist workshop, preferably your authorised BMW Motorrad retailer.

TOOLKIT



1 Screwdriver handle
–Use with screwdriver insert
–Topping up the engine oil. (➠ 193)

2 Reversible screwdriver blade
Phillips PH1 and Torx T25
–Remove the battery cover. (➠ 217)

3 Open-ended spanner
Width across flats 8/10 mm
–Removing battery (➠ 217).

4 Open-ended spanner
Width across flats 14 mm
–Adjust the mirror arm. (➠ 126)

FRONT-WHEEL STAND

Installing front-wheel stand

ATTENTION

Use of the BMW Motorrad front-wheel stand without accompanying use of centre stand or auxiliary stand
Risk of damage to parts if vehicle topples
- Place the motorcycle on its centre stand or another auxiliary stand before lifting the front wheel with the BMW Motorrad front-wheel stand.

- Make sure the motorcycle is standing firmly.
- Make sure the ground is level and firm and place the motorcycle on its centre stand.



- See the instructions issued with the front-wheel stand for the details of the correct procedure for installation.
- BMW Motorrad offers an auxiliary stand suitable for every vehicle. Your BMW Motorrad retailer will be happy to help you with the selection of a suitable auxiliary stand.

ENGINE OIL

Checking engine oil level

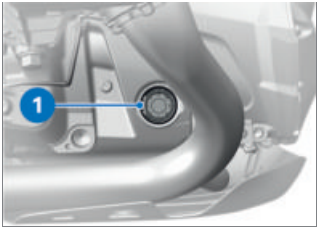
- Make sure the ground is level and firm and with the engine at operating temperature, place the motorcycle on the centre stand.

ATTENTION

Misinterpretation of oil level reading, because oil level is temperature-dependent (the higher the temperature, the higher the oil level)
Engine damage
- Check the oil level only after a lengthy ride or when the engine is at operating temperature.

- Allow the engine to idle until the fan cuts in.
- Switch off the engine when it is at operating temperature.
- Wait five minutes for the oil to drain into the oil pan.

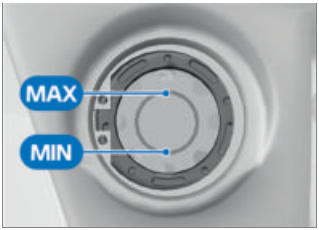
As a contribution to reducing environmental impact, BMW Motorrad recommends checking the engine oil on occasion after a trip of min 50 km.



ATTENTION

Vehicle toppling sideways
Risk of damage to parts if vehicle topples
- Secure the vehicle, preferably with the assistance of a second person, so that it cannot topple sideways.

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



	Engine oil, specified level
Between **MIN** and **MAX** marks	

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

- Topping up the engine oil. (➠ 193)

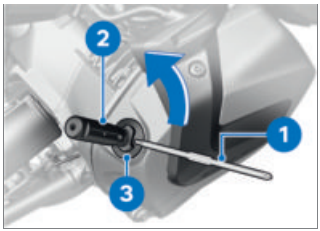
If the oil level is above the **MAX** mark:

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

Topping up engine oil

- Make sure the ground is level and firm and place the motorcycle on its stand.
- Checking engine oil level

Incorrect interpretation of the oil capacity is possible because the oil level is temperature-dependent.



- Wipe the area around the oil filler opening clean.
- Insert Torx end of reversible screwdriver insert **1** into screwdriver handle **2** (toolkit) for additional leverage.
- Engage this tool in cap **3** of the oil filler opening and turn anti-clockwise to remove.
- Check the engine oil level. (➠ 191)

ATTENTION

Use of insufficient engine oil or too much engine oil
Engine damage
- Always make sure that the oil level is correct.

- Top up the engine oil to the specified level.

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

- Check the engine oil level. (➠ 191)
- Install cap **3** of the oil filler opening.

BRAKE SYSTEM

Check operation of the brakes

- Pull the handbrake lever.
» The pressure point must be clearly perceptible.
- Press the footbrake lever.
» The pressure point must be clearly perceptible.

If pressure points are not clearly perceptible:

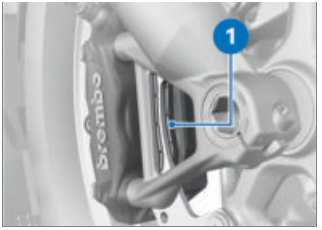
ATTENTION

Work on brake system not in compliance with correct procedure
Risk to operational reliability of the brake system
- Have all work on the brake system undertaken by trained and qualified specialists.

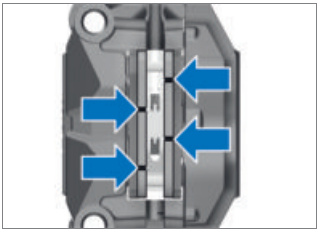
- Have the brakes checked by a specialist workshop, preferably an authorised BMW Motorrad retailer.

Checking brake pad thickness, front brakes

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



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



Brake-pad wear limit, front
1.0 mm (Friction pad only, without backing plate. The wear indicators (grooves) must be clearly visible.)

If the wear indicating marks are no longer clearly visible:

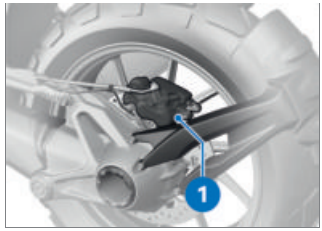
WARNING

Brake-pad thickness less than permissible minimum
Diminished braking effect, damage to the brakes
- In order to ensure the dependability of the brake system, do not permit the brake pads to wear past the minimum permissible thickness.

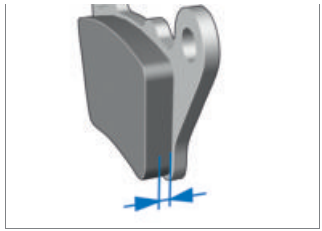
- Have the brake pads replaced by a specialist workshop, preferably an authorised BMW Motorrad retailer.

Checking brake pad thickness, rear brakes

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



- Visually inspect the brake pads to ascertain their thickness. Viewing direction: Between spray guard and rear wheel toward brake pads **1**.



	Brake-pad wear limit, rear
1.0 mm (Friction pad only, without backing plate.)	

If the wear limit has been reached:

WARNING

Brake-pad thickness less than permissible minimum
Diminished braking effect, damage to the brakes
- In order to ensure the dependability of the brake system, do not permit the brake pads to wear past the minimum permissible thickness.

- Have the brake pads replaced by a specialist workshop, preferably an authorised BMW Motorrad retailer.

Checking brake-fluid level, front brakes

WARNING

Not enough brake fluid in brake fluid reservoir, or contaminants in brake fluid
Considerably reduced braking power due to presence of air, contaminants or water in the brake system
- Cease operation of the vehicle immediately and do not ride it until the fault has been rectified.
- Check the brake-fluid levels at regular intervals.
- Always make sure that the lid of the brake fluid reservoir and the area around the lid are cleaned before opening.
- Make sure that only fresh brake fluid from a sealed container is used.

- Make sure the ground is level and firm and place the motorcycle on its centre stand.
- Move the handlebars to the straight-ahead position.



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

Wear of the brake pads causes the brake fluid level in the reservoir to sink.



Brake fluid level, front
Brake fluid, DOT4
The brake fluid level may not drop below the **MIN** mark. (Brake-fluid reservoir horizontal, motorcycle upright)

If the brake fluid level drops below the permitted level:

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

Checking brake-fluid level, rear brakes

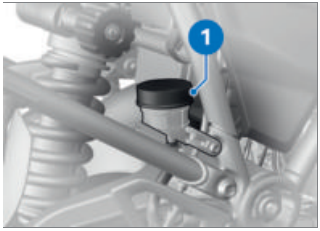
WARNING

Not enough brake fluid in brake fluid reservoir, or contaminants in brake fluid

Considerably reduced braking power due to presence of air, contaminants or water in the brake system

- Cease operation of the vehicle immediately and do not ride it until the fault has been rectified.
- Check the brake-fluid levels at regular intervals.
- Always make sure that the lid of the brake fluid reservoir and the area around the lid are cleaned before opening.
- Make sure that only fresh brake fluid from a sealed container is used.

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



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

Wear of the brake pads causes the brake fluid level in the reservoir to sink.



Brake fluid level, rear
Brake fluid, DOT4
The brake fluid level may not drop below the **MIN** mark. (Brake-fluid reservoir horizontal, motorcycle upright)

If the brake fluid level drops below the permitted level:

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

CLUTCH

Checking operation of the clutch

- Pull the clutch lever.

» The pressure point must be clearly perceptible.

If the pressure point is not clearly perceptible:

- Have the clutch checked by a specialist workshop, preferably an authorised BMW Motorrad retailer.

COOLANT

Check the coolant level

- Make sure the ground is level and firm and place the motorcycle on its stand.
- Allow the engine to cool down.



- Check the coolant level in expansion tank **1**.



Coolant, specified level
between **MIN** and **MAX** mark on the expansion tank (Engine cold)

If the coolant drops below the permitted level:

- Top up the coolant. (➠ 199)

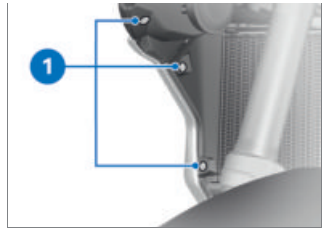
Topping up coolant

WARNING

Opening radiator cap

Risk of burning

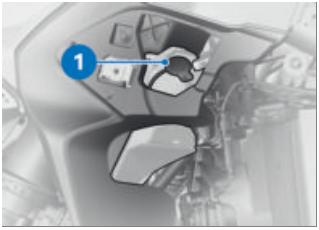
- Do not open the radiator cap when the system is hot.
- Check and, if necessary, top up the coolant in the expansion tank only.



- Remove screws **1**.



- Remove screws **1**.
- Pull and remove side trim panel **2** from the clamp **3**.



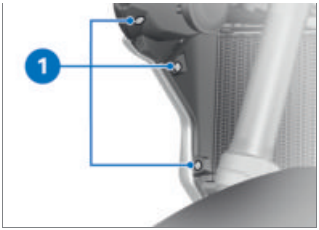
- Open cap **1**.
- Top up coolant to specified level.
- Check the coolant level. (➠ 198)
- Close the cap of the expansion tank.



- Insert side panel **1** into slots **2**.
- Engage clamp **3**.



- Install screws **1**.



- Install screws **1**.

TYRES

Check the tyre pressures

WARNING

Incorrect tyre pressure
Impaired handling characteristics of the motorcycle, shorter useful tyre life
- Always check that the tyre pressures are correct.

WARNING

Tendency of valve inserts installed vertically to open by themselves at high riding speeds

Sudden loss of tyre pressure

- Install valve caps fitted with rubber sealing rings and tighten firmly.

- Make sure the ground is level and firm and place the motorcycle on its stand.
- Check tyre pressures against the data below.

 Tyre pressure, front
2.5 bar (Tyre cold)
 Tyre pressure, rear
2.9 bar (Tyre cold)

If tyre pressure is too low:

- Correct tyre pressure.

Tyre pressures can be determined with tyre pressure control (RDC). The tyre-pressure readings shown in the instrument cluster are temperature-compensated and are always referenced to a tyre air temperature of 20 °C. The gauges on forecourt air lines do not compensate for temperature. Consequently, the values they show do not usually tally with the pressure readings shown by the TFT display.

Check the tyre tread depth

WARNING

Riding with badly worn tyres

Risk of accident due to impaired handling

- If applicable, have the tyres changed in good time before they wear to the minimum tread depth permitted by law.

- Make sure the ground is level and firm and place the motorcycle on its stand.
- Measure the tyre tread depth in the main tread grooves with wear marks.

Wear indicators are built into the main profile grooves on each tyre. The tyre is worn out when the tyre tread has worn down to the level of the marks. The locations of the marks are indicated on the edge of the tyre, e.g. by the letters TI, TWI or by an arrow.

If the tyre tread is worn to minimum:
- Replace tyre or tyres, as applicable.

WHEEL RIMS

Checking rims

- Make sure the ground is level and firm and place the motorcycle on its stand.
- Visually inspect the rims for defects.
- Have damaged rims checked and, if necessary, replaced by a specialist workshop, preferably an authorised BMW Motorrad retailer.

Check the spokes

–with cross-spoked wheels OE
or
–with cross-spoked wheels II OE

- Make sure the ground is level and firm and place the motorcycle on its stand.
- Draw the handle of a screwdriver or a similar instrument across the spokes and listen to the sequence of sounds made by the individual spokes.

If there is a variation in the sequence of sounds:
- Have the spokes checked by a specialist workshop, preferably an authorised BMW Motorrad retailer.

WHEELS

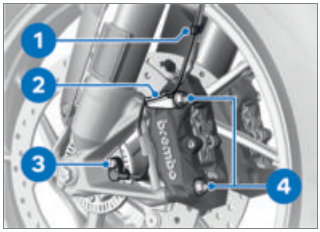
Effect of wheel size on chassis and suspension control systems

Wheel size is very important as a parameter for the ABS running-gear control system. In particular, the diameter and the width of a vehicle's wheels are programmed into the control unit and are fundamental to all calculations. Any change in these influencing variables, caused for example by a switch to wheels other than those installed ex-works, can have serious effects on the performance of the control systems.
The sensor rings are essential for correct road-speed calculation, and they too must match the motorcycle's control systems and consequently cannot be changed.
If you decide that you would like to fit non-standard wheels to your motorcycle, it is very important to consult a specialist workshop

beforehand, preferably an authorised BMW Motorrad retailer. In some cases, the data programmed into the control units can be changed to suit the new wheel sizes.

Removing front wheel

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



- Disengage the cable for the wheel speed sensor from holding clips **1** and **2**.
- Remove screw **3** and remove the wheel speed sensor from its bore.
- Mask off the parts of the wheel rim that could be scratched in the process of removing the brake calipers.

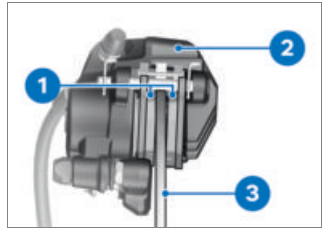
ATTENTION

Unwanted inward movement of the brake pads

Component damage on attempt to install the brake caliper or because brake pads have to be forced apart

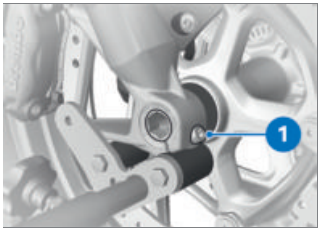
- Do not operate the brakes with a brake caliper not correctly secured.

- Remove mounting bolts **4** of the left and right brake calipers.

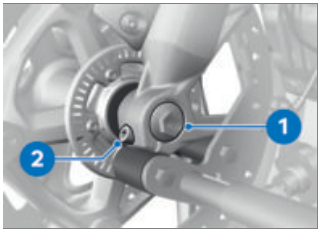


- Force brake pads **1** slightly apart by rocking brake caliper **2** back and forth against brake disc **3**.
- Carefully pull the brake calipers back and out until clear of the brake discs.

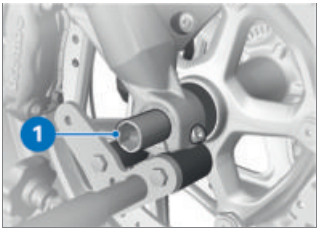
- Lift the front of the motorcycle until the front wheel is clear of the ground, preferably using a BMW Motorrad front-wheel stand.
- Installing front-wheel stand (➠ 191)



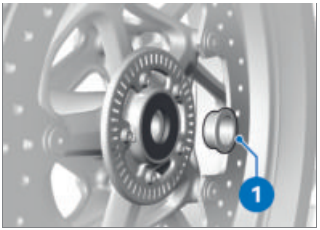
- Undo right axle clamping screw **1**.



- Remove screw **1**.
- Undo left axle clamping screw **2**.
- Press quick-release axle slightly toward the inside, so as to be better able to grip it on the right-hand side.



- Withdraw quick-release axle **1**, support the front wheel when doing this.
- Set down front wheel and roll forwards out of the front suspension.



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

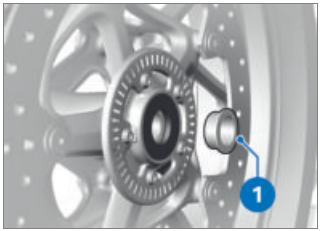
Installing front wheel

WARNING

Use of a non-standard wheel
Malfunctions in operation of ABS and DTC
- See the information on the effect of wheel size on the ABS and DTC systems at the start of this chapter.

ATTENTION

Tightening threaded fasteners to incorrect tightening torque
Damage, or threaded fasteners work loose
- Always have the security of the fasteners checked by a specialist workshop, preferably an authorised BMW Motorrad dealer.



- Lubricate the friction face of spacer bushing **1**.

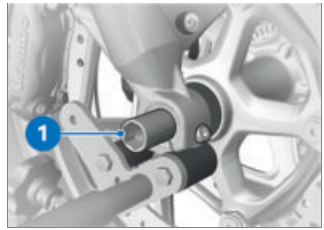
Lubricant
Optimoly TA

- Insert spacer bushing **1** into the wheel hub on the left-hand side.

ATTENTION

Front wheel installed wrong way round
Risk of accident
- Note direction-of-rotation arrows on tyre or rim.

- Roll the front wheel into position between the forks of the front suspension.

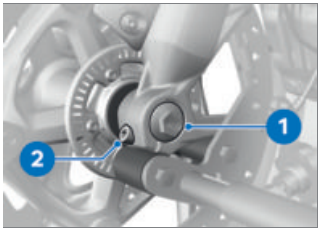


- Lubricate quick-release axle **1**.

Lubricant
Optimoly TA

- Lift the front wheel slightly and install quick-release axle **1**.

- Remove front-wheel stand and firmly compress front forks several times. Do not operate the handbrake lever in this process.
- Installing front-wheel stand (➠ 191)

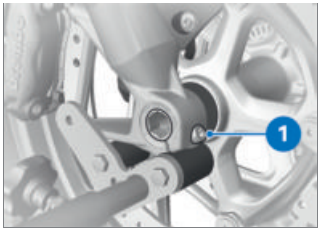


- Install screw **1** and tighten to specified torque. In this process, counter-hold the quick-release axle on the right side.

Quick-release axle in telescopic forks
M12 x 20
30 Nm

- Tighten left axle clamping screw **2** to specified torque.

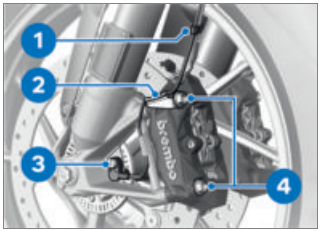
Clamping screw for quick-release axle in telescopic fork
M8 x 35
19 Nm



- Tighten right axle clamping screw **1** to specified torque.

Clamping screw for quick-release axle in telescopic fork
M8 x 35
19 Nm

- Remove the front-wheel stand.
- Position left and right brake calipers on the brake discs.



- Install securing screws **4** on left and right and tighten to specified tightening torque.

Radial brake caliper on telescopic forks
M10 x 65
38 Nm

- Remove the adhesive tape from the wheel rim.

WARNING

Brake pads not lying against the brake disc
Risk of accident due to delayed braking effect.
- Before driving, check that the brakes respond without delay.

- Operate the brake several times until the brake pads are bedded.
- Insert the cable for the wheel speed sensor into holding clips **1** and **2**.
- Insert the wheel speed sensor into the bore hole and install screw **3**.

Wheel-speed sensor to fork leg
M6 x 16
Joining compound: Micro-encapsulated
8 Nm

Removing rear wheel
- Make sure the ground is level and firm and place the motorcycle on its centre stand.
- Engage first gear.

CAUTION

Hot exhaust system
Risk of burn injury
- Do not touch a hot exhaust system.

- Allow rear silencer to cool down.



- Remove bolts **1** from the rear wheel, while supporting the wheel.
- Roll the rear wheel out toward the rear.

Installing rear wheel

WARNING

Use of a non-standard wheel
Malfunctions in operation of ABS and DTC
- See the information on the effect of wheel size on the ABS and DTC systems at the start of this chapter.

ATTENTION

Tightening threaded fasteners to incorrect tightening torque
Damage, or threaded fasteners work loose
- Always have the security of the fasteners checked by a specialist workshop, preferably an authorised BMW Motorrad dealer.

- Seat the rear wheel on the rear-wheel adapter.



- Install wheel bolts **1** and tighten to specified torque.

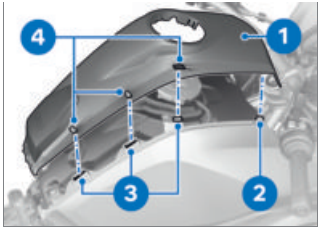
Rear wheel to wheel flange
Tightening sequence: tighten in diagonally opposite sequence
M10 x 1.25 x 40
60 Nm

AIR FILTER

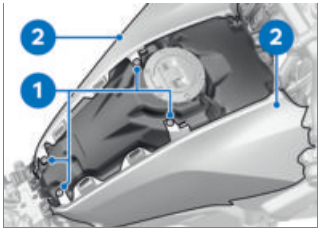
Removing air filter element



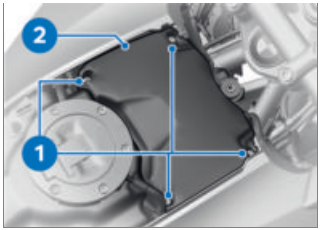
- Remove the front seat. (➠ 135)
- Remove screws **1**, **2** and **3**.



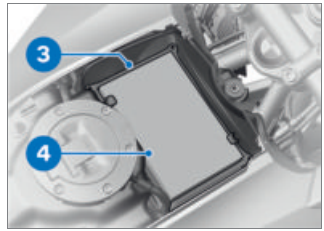
- When removing, note retaining lugs **2** and disengage holders **4** from retaining lugs **3**.
- Remove centre trim panel **1**.



- Remove screws **1**.
- Undo cover **2** on both sides.



- Remove screws **1**.
- Remove air filter cover **2**.



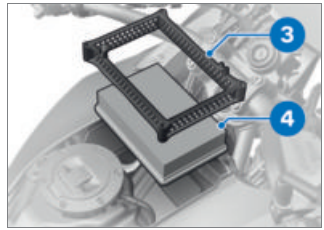
- Remove frame **3**.
- Remove air filter insert **4**.

Check air-filter element

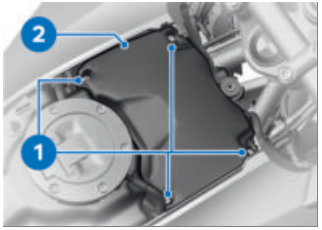
- Check the air filter element, clean as necessary.

» Replace the air-filter element if it is badly dirtied.

Installing air filter element

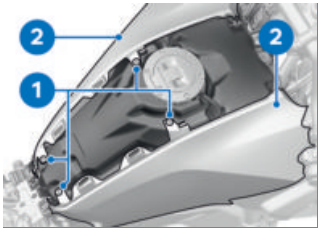


- Insert air filter element **4** and frame **3**.

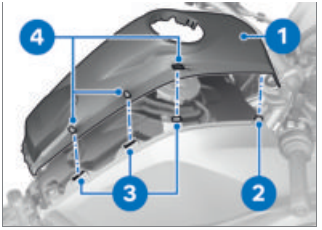


- Place air filter cover **2** in position.
- Install screws **1**.

	Air filter cover to intake air silencer
Tightening sequence: in diagonally opposite sequence	
M5 x 50	
3 Nm	



- Position cover **2** on both sides.
- Install screws (short collar) **1**.



- When installing, note retaining lugs **2** and make sure that holders **4** engage in retaining lugs **3**.
- Install tank cover **1**.



- Install screw **1**.

	Centre tank cover on frame
M6 x 24,5	
8 Nm	

- Install screws (short collar) **2**.
- Install screws (without collar) **3**.
- Install the rider's seat. (➠ 137)

LIGHTING

Replacing LED light sources

–without control for headlight OE

WARNING

Vehicle overlooked in traffic due to failure of the lights on the vehicle

Safety risk

- Always replace a faulty bulb at the earliest possible opportunity. Consult a specialist workshop, preferably an authorised BMW Motorrad Retailer.

All light sources of the vehicle are LED light sources. The service life of the LED light sources is longer than the presumed vehicle service life. If an LED light source is faulty contact a specialist workshop, preferably an authorised BMW Motorrad retailer.

Replacing bulb for low-beam and high-beam headlight

–with control for headlight OE

- Make sure the ground is level and firm and place the motorcycle on its stand.
- Switch off the ignition.

The arrangements of the connectors and the light sources may differ from the following figures.



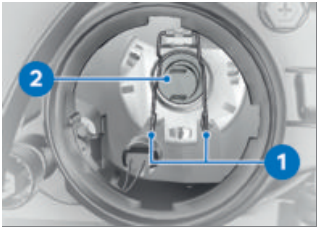
- Remove cover **1** by turning it counter-clockwise to replace the bulb for the low-beam headlight.



- Remove cover **1** by turning it counter-clockwise to replace the bulb for the high-beam headlight.



- Disconnect connector **1**.

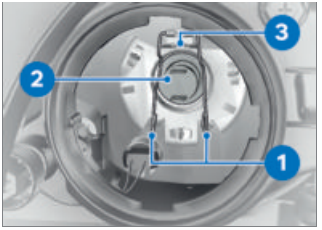


- Disengage spring clips **1** and swing them aside.
- Remove bulb **2**.
- Replace the defective bulb.

Bulbs for the low-beam headlight
–without control for headlight OE
LED◁
–with control for headlight OE
H7 / 12 V / 55 W◁

Bulb for high-beam headlight
–without control for headlight OE
LED◁
–with control for headlight OE
H7 / 12 V / 55 W◁

- Hold the bulb by the base only, in order to keep the glass free of foreign matter.



- Insert bulb **2**, making sure that tab **3** is correctly positioned.

The bulb might face in a direction other than that shown here.

- Engage spring clips **1**.



- Connect connector **1**.
- Place cover in position and fit by turning clockwise.◁

Replacing bulb for side light

–with control for headlight OE

- Make sure the ground is level and firm and place the motorcycle on its stand.
- Switch off the ignition.



- Turn cover **1** counter-clockwise to remove.



- Pull socket **1** out of the headlight housing.



- Remove bulb **1** from the socket.
- Replace the defective bulb.

Bulb for parking light
–without control for headlight OE
LED◁
–with control for headlight OE
W5W / 12 V / 5 W◁

- Use a clean, dry cloth to hold the bulb in order to keep the glass free of foreign matter.



- Insert bulb **1** into the socket.



- Install socket **1** in the headlight housing.
- Place cover in position and fit by turning clockwise.◁

JUMP-STARTING

CAUTION

Touching live parts of the ignition system when the engine is running
Electric shock
- Do not touch parts of the ignition system when the engine is running.

ATTENTION

Excessive current flowing when the motorcycle is jump-started
Wiring smoulders/ignites or damage to the on-board electronics
- If the motorcycle has to be jump-started connect the leads to the battery terminals; never attempt to jump-start the engine by connecting leads to the on-board socket.

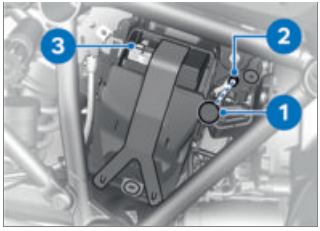
ATTENTION

Contact between crocodile clips of jump leads and vehicle
Risk of short-circuit
- Use jump leads fitted with fully insulated crocodile clips at both ends.

ATTENTION

Jump-starting with a voltage greater than 12 V
Damage to the on-board electronics
- Make sure that the battery of the donor vehicle has a voltage rating of 12 V.

- Make sure the ground is level and firm and place the motorcycle on its stand.
- Remove the battery cover. (➠ 217)
- When jump-starting the engine, do not disconnect the battery from the on-board electrical system.



- Remove protective cap **1**.
- Use the red jump lead to connect remote positive terminal **2** of the discharged battery to the positive terminal of the donor battery.
- Connect one end of the black jump lead to the negative terminal of the donor battery, then connect the other end to negative terminal **3** of the discharged battery.
- Run the engine of the donor vehicle during jump-starting.
- Start the engine of the vehicle with the discharged battery in the usual way; if the engine does not start, wait a few minutes before repeating the attempt in order to protect the starter motor and the donor battery.

Do not use proprietary start-assist sprays or other products to start the engine.

- Allow both engines to idle for a few minutes before disconnecting the jump leads.
- Disconnect the jump lead from the negative terminals first, then disconnect the second lead from the positive terminals.
- Install the protective cap.
- Install the battery cover. (➠ 219)

BATTERY

Maintenance instructions

Correct upkeep, recharging and storage will prolong the life of the battery and are essential if warranty claims are to be considered.

Compliance with the points below is important in order to maximise battery life:

– Keep the surface of the battery clean and dry.
– Do not open the battery.
– Do not top up with water.
– Be sure to read and comply with the instructions for char-

ging the battery on the following pages.
– Do not turn the battery upside down.

ATTENTION

On-board electronics (e.g. clock) draining connected battery
Battery is deep-discharged; this voids the guarantee
- Connect a float charger to the battery if the motorcycle is to remain out of use for more than four weeks.

BMW Motorrad has developed a float charger specially designed for compatibility with the electronics of your motorcycle. Using this charger, you can keep the battery charged during long periods of disuse, without having to disconnect the battery from the motorcycle's on-board systems. You can obtain additional information from your authorised BMW Motorrad dealer.

Charging battery when connected

ATTENTION

Charging the battery that is connected to the vehicle via the battery terminals
Damage to the on-board electronics
- Disconnect the battery at the battery terminals before charging.

ATTENTION

Recharging a fully discharged battery via the power socket or extra socket
Damage to the vehicle electronics
- If a battery has discharged to the extent that it is completely flat (battery voltage less than 12 V, indicator lights and multifunction display remain off when the ignition is switched on) always charge the **disconnected** battery with the charger connected directly to the battery terminals.

ATTENTION

Unsuitable chargers connected to a socket
Damage to charger and vehicle electronics
- Use suitable BMW chargers. The suitable charger is available from your authorised BMW Motorrad dealer.

- With the battery connected to the vehicle's on-board electrical system, charge via the power socket.

The motorcycle's on-board electronics know when the battery is fully charged. The on-board socket is switched off when this happens.

- Comply with the operating instructions of the charger.

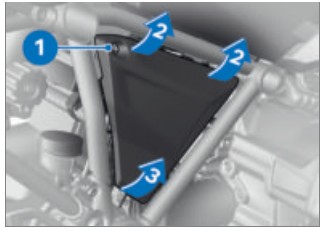
If you are unable to charge the battery through the on-board socket, you may be using a charger that is not compatible with your motorcycle's electronics. In this case, directly charge the battery at the terminals of the battery that has been disconnected from the vehicle.

Charge the battery when disconnected

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

The battery has to be recharged at regular intervals in the course of a lengthy period of disuse. See the instructions for caring for your battery. Always fully recharge the battery before restoring it to use.

Removing battery

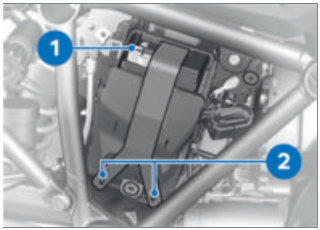


- Switch off the ignition.
- Remove screw **1**.
- Pull the battery cover slightly forward at the top at positions **2**.
- In order not to damage the battery cover or the mounting,

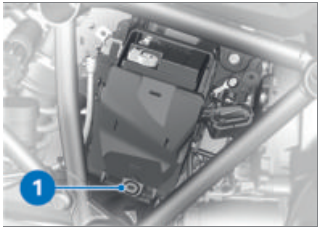
work the battery cover up at position **3** to remove.

–with anti-theft alarm (DWA) OE

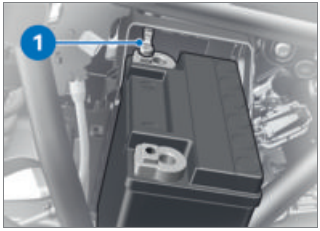
- If applicable, switch off the anti-theft alarm.◁



- Disconnect battery earth lead **1** and disengage rubber strap **2**.
- Wrap the end of negative battery cable **1** with insulating tape.



- Pull retaining panel in position **1** outwards and remove in an upward direction.
- Slightly lift the battery and ease it clear of the holder until the battery positive terminal is accessible.



- Disconnect battery negative lead **1** and remove the battery.

Installing battery

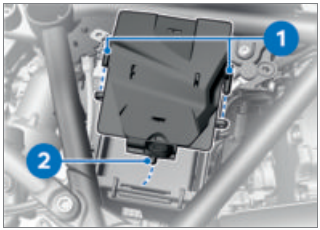
If the 12 V battery is not correctly installed or if the polarity of the terminals is reversed (e.g. in an attempt to jump-start the vehicle), this can cause the fuse for the alternator regulator to blow.



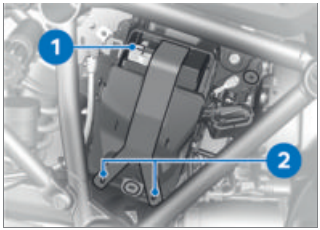
- Secure positive battery cable **1**.

Wiring harness to battery
M6 x 11
8 Nm

- Push battery into the mounting.



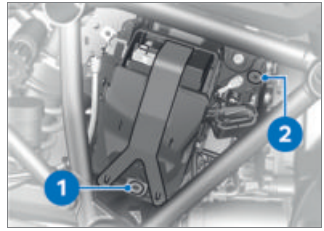
- First insert retaining plate into the mountings **1** and then push under the battery in position **2**.



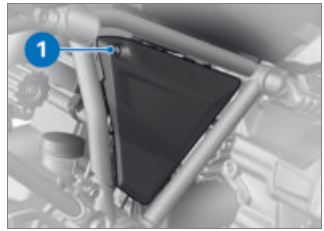
- Remove the insulating tape from negative battery cable **1**.
- Secure negative battery cable **1**.

Wiring harness to battery
M6 x 11
8 Nm

- Secure the battery with rubber strap **2**.



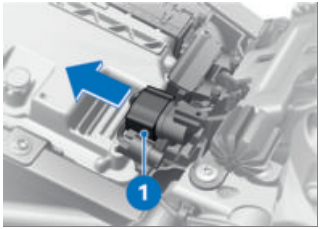
- Place battery cover into the mounting **1** and press into the mounting **2**.



- Install screw **1**.
- Set the clock. (➠ 111)
- Set the date. (➠ 111)

FUSES

Replacing fuses



- Switch off the ignition.
- Remove the front seat. (➠ 135)
- Disconnect connector **1**.

ATTENTION

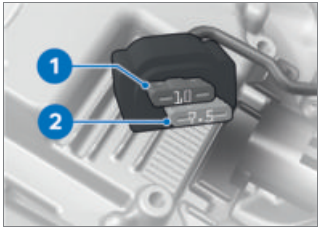
Jumpering of blown fuses
Risk of short-circuit and fire
- Never attempt to jumper a blown fuse.
- Always replace a defective fuse with a new fuse of the same amperage.

- Replace faulty fuse in accordance with the fuse allocation diagram.

If fuse defects recur frequently have the electric circuits checked by a specialist workshop, preferably an authorised BMW Motorrad dealer.

- Install plug **1**.
- Install the rider's seat. (➠ 137)

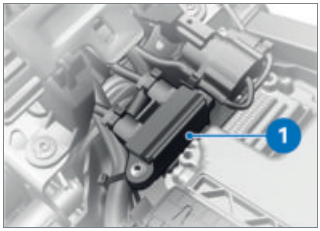
Fuse assignment



1 10 A
Instrument cluster
Anti-theft alarm (DWA)
Ignition switch
Socket for onboard diagnosis
Coil, isolating relay

2 7.5 A
Multifunction switch, left
Tyre pressure control (RDC)
Sensor box
Seat heating

Fuse for alternator regulator



1 50 A
Alternator regulator

Have the fuse replaced by a specialist workshop, preferably an authorised BMW Motorrad retailer.

DIAGNOSTIC CONNECTOR

Disengaging diagnostic socket

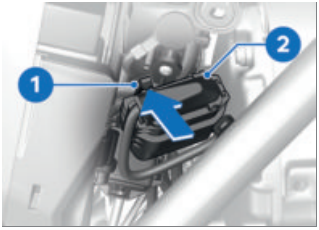
CAUTION

Incorrect disconnection of the diagnostic socket for on-board diagnosis

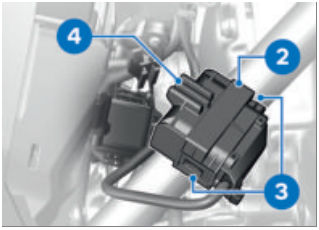
Malfunctions of the vehicle

- Do not disconnect the diagnostic socket or allow it to be disconnected except in the course of a BMW Motorrad service by a specialist workshop or by other authorised persons.
- Have the work carried out by appropriately trained personnel.
- Comply with the stipulations of the vehicle manufacturer.

- Remove the battery cover. (➠ 217)



- Press hook **1** and pull diagnostic socket **2** up to remove.

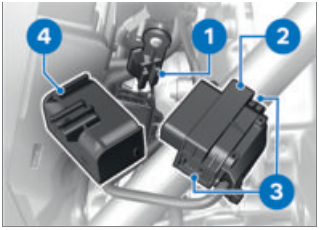


- Press locks **3** on both sides.
- Disengage diagnostic socket **2** from holder **4**.

» The interface to the diagnosis and information system can be connected to the diagnostic connector **2**.

Securing diagnostic socket

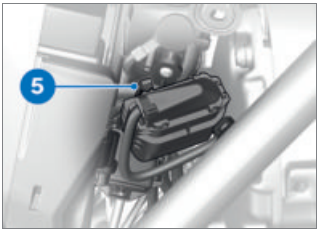
- Disconnect the interface for the diagnosis and information system.



- Insert diagnostic socket **2** into holder **4**.

» Locks **3** engage on both sides.

- Seat bracket **4** on mounting **1**.



- Make sure that hook **5** engages.
- Install the battery cover. (➠ 219)

ACCESSORIES

10

GENERAL NOTES 226
POWER SOCKETS 226
USB CHARGING SOCKET 227
CASES 228
TOPCASE 231
NAVIGATION SYSTEM 237

GENERAL NOTES

CAUTION

Use of other-make products
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 vehicles without constituting a safety hazard. Country-specific official authorisation does not suffice as assurance. Tests conducted by these instances cannot make provision for all operating conditions experienced by BMW vehicles and, consequently, they are not sufficient in some circumstances.
- Use only parts and accessories approved by BMW for your vehicle.

BMW has conducted extensive testing of the parts and accessory products to establish that they are safe, functional and suitable. Consequently, BMW accepts responsibility for the products. BMW accepts no liability whatsoever for parts and accessories that it has not approved.

All modifications must be in compliance with legal requirements. Make sure that the vehicle does not infringe the national road-vehicle construction and use regulations applicable in your country.
Your authorised BMW Motorrad retailer can offer expert advice on the choice of genuine BMW parts, accessories and other products. To find out more about accessories go to: **bmw-motorrad.com/equipment**.

POWER SOCKETS

Connection of electrical devices

– You can start using electrical devices connected to the motorcycle's sockets only when the ignition is switched on.

Cable routing

– The cables from the power sockets to the auxiliary devices must be routed in such a way that they do not impede the rider.
– The cable routing should not restrict the steering angle or obstruct handling.

–The cables must not be trapped.

Automatic shutdown

–The sockets will be automatically switched off during the start procedure.
–The power supply to the sockets is switched off 60 seconds after the ignition is switched off, in order to prevent overloading of the on-board electrics. Low-wattage electrical accessories might not be recognised by the vehicle's electronics. In such cases, power sockets are switched off very shortly after the ignition is turned off.
–If the battery charge state is too low to maintain the motorcycle's start capability, the power sockets are switched off.
–The power sockets are also switched off when the maximum load capability as stated in the technical data is exceeded.

USB CHARGING SOCKET

Notes on use:

Charge current

This is a 5 V USB charging interface that provides a maximum charge current of 2.4 A.

Automatic shutdown

The USB charging sockets are shut down automatically under the following circumstances:
–If battery charge state is too low, to maintain the vehicle's start capability.
–If the maximum load capacity as stated in the technical data is exceeded.
–During the starting operation.

Connection of electrical devices

You can start using electrical devices connected to the USB charging sockets only when the ignition is switched on. The power supply to the sockets is switched off no more than 60 seconds after the ignition is switched off, in order to prevent overloading of the on-board electrics.
While riding in the rain, you should disconnect the device from the interface in order to protect against damage.
To prevent dirtying, keep the protective cover closed when no device is connected.

Cable routing

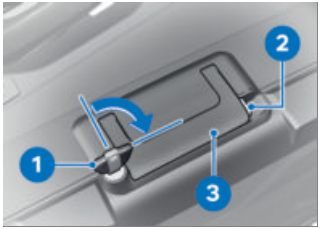
Note the following with regard to the routing of cables from USB charging sockets to items of electronic equipment:

– Make sure that cables do not impede the rider.
– Make sure that cables do not restrict the steering angle or obstruct handling.
– Make sure that cables cannot be trapped.

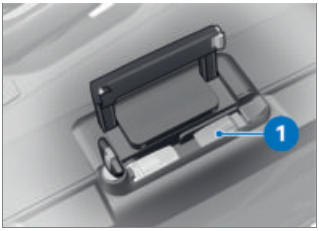
CASES

– with case OA

Opening cases



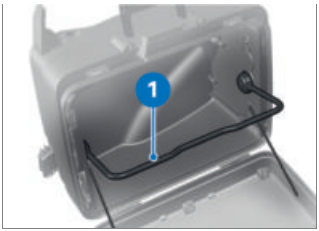
- Turn key **1** clockwise.
- Press and hold down yellow latch **2** and pull out carry handle **3**.



- Push yellow button **1** down, simultaneously opening the case lid.

Adjust the case volume

- Open the case and remove all its contents.

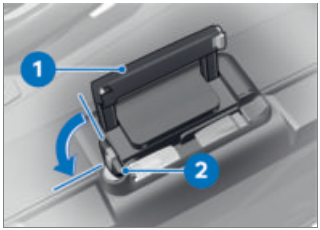


- Engage lever **1** in the upper end position to obtain the smaller volume.
- Engage lever **1** in the lower end position to obtain the larger volume.
- Close the case.

Closing cases

- Turn the lock with the key until it is at right angles to the forward direction of travel.
- Close the case lid.

» The lid engages with an audible click.



ATTENTION

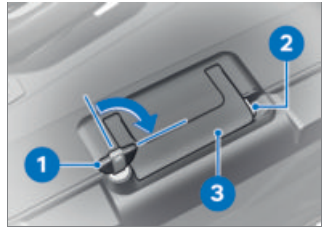
Closure of carrying handle with case lock latched

Damage to locking tab

- Make sure that the case lock is at right angles to the forward direction of travel when you close the carry handle.

- Close carry handle **1**.
- Turn key **2** anti-clockwise and withdraw.

Removing cases



- Turn key **1** clockwise.
- Press and hold down yellow latch **2** and pull out carry handle **3**.

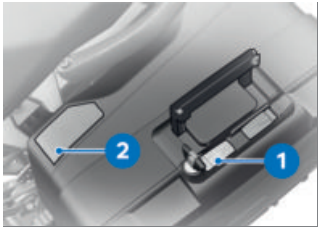


- Pull red release lever **1** up.

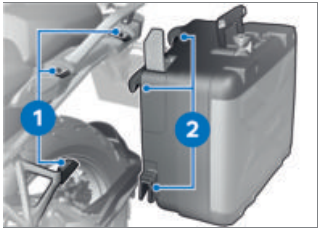
» Latching flap **2** pops up.

- Fully open the latching flap.
- Take a firm grip of the carry handle and lift the case out of the holder.

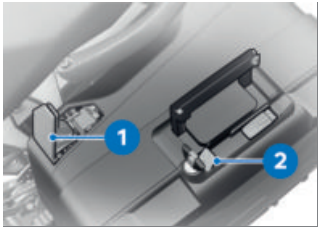
Installing cases



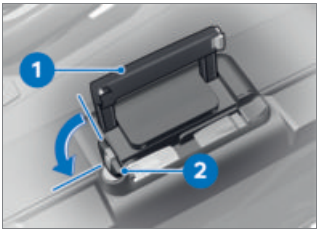
- Pull red release lever **1** up.
» Latching flap **2** pops up.
- Fully open the latching flap.



- Insert case into brackets **1** and **2** from above.



- Push locking flap **1** down until you feel some resistance.
- Then push locking flap and red release lever **2** down simultaneously.
» The locking flap engages.



ATTENTION

Closure of carrying handle with case lock latched

Damage to locking tab

- Make sure that the case lock is at right angles to the forward direction of travel when you close the carry handle.

- Close carry handle **1**.
- Turn key **2** anti-clockwise and withdraw.

Maximum payload and maximum speed

Note the maximum payload and the maximum permissible speed.

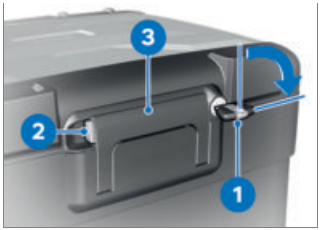
The values for the combination described here are as follows:

Maximum permissible speed for riding with Vario cases fitted to the motorcycle
max 180 km/h
Payload per Vario case
max 10 kg

TOPCASE

Opening topcase

–with topcase OA



- Turn key **1** clockwise.
- Press and hold down yellow latch **2** and pull out carry handle **3**.



- Push yellow button **1** forwards, simultaneously opening the topcase lid.

Adjust the topcase volume

–with topcase OA

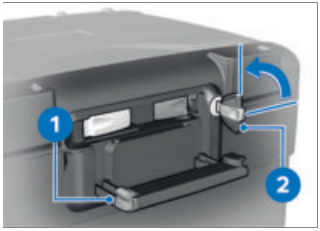
- Open the topcase and remove all its contents.



- Engage lever **1** in the forwards end position to obtain the larger volume.
- Engage lever **1** in the rearwards end position to obtain the smaller volume.
- Close the topcase.

Closing topcase
–with topcase OA

- Press down firmly on the topcase lid to close.

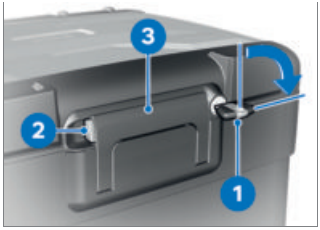


ATTENTION

Closure of carrying handle with case lock latched
Damage to locking tab
- Make sure that the topcase lock is vertical when you close the carry handle.

- Close carry handle **1**.
» The handle engages with an audible click.
- Turn key **2** anti-clockwise and withdraw.

Removing topcase
–with topcase OA



- Turn key **1** clockwise.
- Press and hold down yellow latch **2** and pull out carry handle **3**.



- Pull red lever **1** to the rear.
» Latching flap **2** pops up.
- Fully open the latching flap.
- Take a firm grip of the handle and lift the topcase out of the holder.

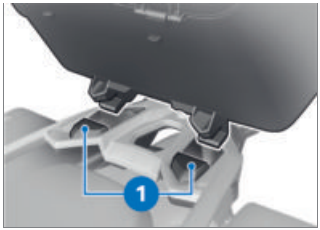
Installing topcase
–with topcase OA



- Pull red lever **1** to the rear.

» Latching flap **2** pops up.

- Fully open the latching flap.

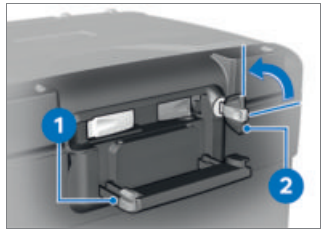


- Engage the topcase in front holders **1** of the topcase carrier plate.
- Press the rear of the topcase on to the topcase carrier plate.



- Push locking flap **1** forwards until you feel some resistance.
- Then push locking flap and red release lever **2** forwards simultaneously.

» The locking flap engages.



ATTENTION

Closure of carrying handle with case lock latched

Damage to locking tab

- Make sure that the topcase lock is vertical when you close the carry handle.

- Close carry handle **1**.

» The handle engages with an audible click.

- Turn key **2** anti-clockwise and withdraw.

Maximum payload and maximum speed

–with topcase OA

Note the maximum payload and the maximum permissible speed.
The values for the combination described here are as follows:

Maximum speed for riding with a laden Vario topcase
max 180 km/h
Payload of Vario topcase
max 5 kg

Installing topcase

–with topcase 2, large, 50 l OA

WARNING

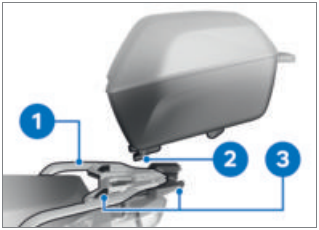
Topcase not properly secured

Driving safety is impaired

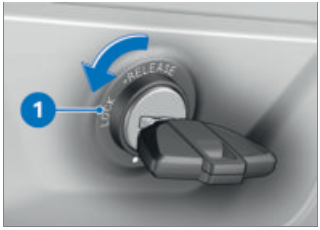
- The topcase must not wobble and must be secured free from play.



- Pull carry handle **1** up as far as it will go.



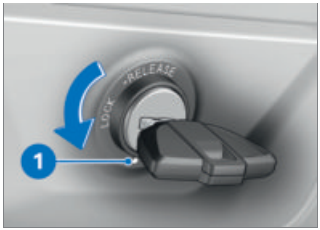
- Hook the topcase into position on luggage carrier **1**. Make sure that hooks **2** are securely seated in keepers **3**.
- Push the carry handle down until it engages.



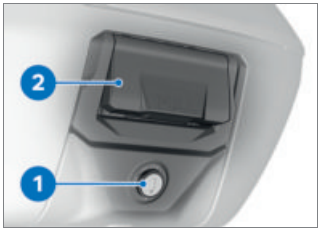
- Turn the key in the topcase lock to position **1** and remove the key from the lock.

Opening topcase

–with topcase 2, large, 50 l[OA]



- Turn the key in the topcase lock to position **1**.



- Push lock barrel **1** forward.

» Release lever **2** pops up.

- Pull the release lever all the way up.

» The lid of the topcase opens.

Closing topcase

–with topcase 2, large, 50 l[OA]



- Pull release lever **1** all the way up.
- Close the lid of the topcase and hold it down. Check that nothing is trapped between the lid and the case.

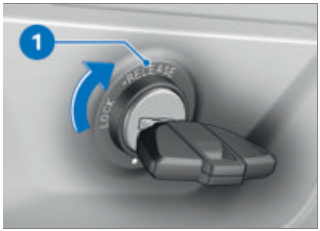
The topcase can also be closed when the lock is in the **LOCK** position. Make sure that the ignition key is not left inside the topcase.



- Push release lever **1** down until it engages.
- Turn the key in the topcase lock to the **LOCK** position and remove the key from the lock.

Removing topcase

–with topcase 2, large, 50 l[OA]



- Turn the key in the topcase lock to position **1**.

» The handle pops out.



- Pull carry handle **1** up as far as it will go.
- Lift the topcase at the rear and remove it from the luggage carrier.

Maximum payload and maximum speed

–with topcase 2, large, 50 l[OA]

Note the maximum payload and the maximum permissible speed.
The values for the combination described here are as follows:

Maximum speed for riding with Topcase 2 large, 50 l
max 180 km/h

Payload of Topcase 2 large, 50 l
max 5 kg

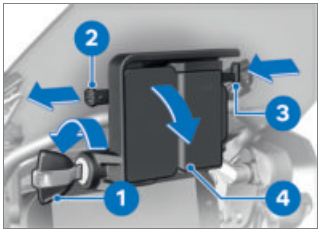
NAVIGATION SYSTEM

–with preparation for navigation system OE

Secure the navigation device

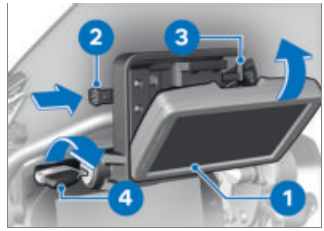
Navigation preparation is suitable from BMW Motorrad Navigator IV.

The latching system of the Mount Cradle is not designed to protect against theft.
Always remove the navigation system and stow it away safely as soon as you finish your ride.



- Turn ignition key **1** counterclockwise.
- Pull the lock retainer **2** to the **left**.
- Press the lock **3** in.

» The Mount Cradle is unlocked and cover **4** can be pivoted forward and removed.



- Insert navigation device **1** at bottom and pivot it toward the rear.

» The navigation device engages with an audible click.

- Push the lock retainer **2** all the way to the **right**.

» Lock **3** is locked.

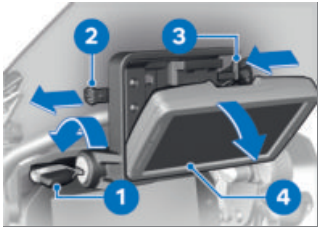
- Turn ignition key **4** clockwise.

» The navigation device is secured and the ignition key can be removed.

Remove the navigation device and install cover

ATTENTION

Dust and dirt on the Mount Cradle contacts
Damaged contacts
- Always reinstall the cover as soon as you finish your ride.



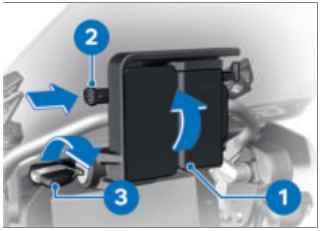
- Turn ignition key **1** anti-clockwise.
- Pull the lock retainer **2** all the way to the **left**.

» Lock **3** is unlocked.

- Push lock **3** all the way to the **left**.

» The navigation device **4** is unlocked.

- Tilt the navigation device **4** down and remove.



- Insert cover **1** in the lower section and swing to the top with a rotational movement.

» The cover engages with an audible click.

- Push lock retainer **2** to the **right**.
- Turn ignition key **3** clockwise.

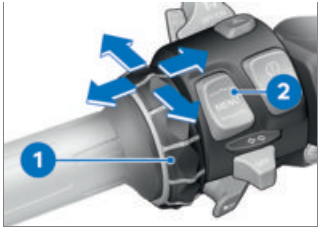
» The cover **1** is secured.

Operating navigation system

The description below is based on the BMW Motorrad Navigator V and the BMW Motorrad Navigator VI. The BMW Motorrad Navigator IV does not support all the options described here.

Only the latest version of the BMW Motorrad communication system is supported. A software update of the BMW Motorrad communication system may be necessary. If this is the case, consult your authorised BMW Motorrad dealer.

If the BMW Motorrad Navigator is installed and the operating focus is switched to the Navigator (➠ 107), some of its functions can be operated without the rider removing a hand from the handlebars.



The navigation system is operated using Multi-Controller **1** and MENU rocker button **2**.

Turning Multi-Controller 1 up and down

On the Compass and Mediaplayer pages: Increase or decrease the volume of a Bluetooth-connected BMW Motorrad communication system.
In the BMW special menu: Select menu item.

Short-tilting Multi-Controller 1 to the left and right

Switch between the main pages of the Navigator:
–Map view
–Compass
–Mediaplayer
–BMW special menu
–My Motorcycle page

Long-tilting Multi-Controller 1 to the left and right

Activate certain functions on the Navigator display. An arrow to the right or to the left above the corresponding button area on the display indicates a function that can be activated in this way.

Long-push to the right to activate this function.

Long-push to the left to activate this function.

Pressing bottom section of MENU rocker button 2

Switch operating focus to Pure Ride view.

In detail, the following functions can be controlled:
Map view
–Turn up: Zoom in.
–Turn down: Zoom out.

Compass page
–Turning increases or decreases the volume of a BMW Motorrad communication system connected via Bluetooth.

BMW special menu

–Speak: Repeat most recent navigation announcement.
–Waypoint: Save current location as a favourite.
–Home: Starts navigation to home address (greyed if no home address has been defined).
–Mute: Switch automatic navigation announcements off or on (off: a crossed-out lips symbol appears in the top line of the display). "Speak" will still activate navigation announcements. All other acoustic outputs remain switched on.
–Switch off display: Deactivate the display.
–Dial home number: Dials the home phone number saved in the Navigator (not shown unless a communication system and a telephone are connected).
–Diversion: Activates the diversion function (not shown unless a route is active).
–Skip: Skips the next waypoint (not shown unless the route has waypoints).

My Motorcycle

–Turn: Changes the number of data shown.
–Touch a data field on the display to open the menu for selecting data.
–The values available fr selection depend on the optional extras installed on the vehicle.

Mediaplayer

–Long-push to the left: Play preceding track.
–Long-push to the right: Play next track.
–Turning increases or decreases the volume of a BMW Motorrad communication system connected via Bluetooth.

The Mediaplayer function is only available when a Bluetooth device complying with the A2DP standard is used, for example a BMW Motorrad communication system.

Indicator and warning messages



Indicator and warning messages from the motorcycle are indicated by an appropriate symbol **1** which appears at the top left in the map view.

If a BMW Motorrad communication system is connected, warnings are accompanied by an acoustic signal.

If there are two or more active warnings the number appears below the warning triangle. Touching the warning triangle when more than one warning is active opens a list of all the warnings.
Additional information appears as soon as a message is selected.

Detailed information cannot be displayed for all warnings.

Special functions

Integration of the BMW Motorrad Navigator has produced a number of deviations from the descriptions in the operating instructions for the Navigator.

Reserve fuel level warning

The settings for the fuel gauge are not available, because the reserve warning is transmitted from the vehicle to the Navigator. Touch the message when it is active to view the locations of the nearest filling stations.

Security settings

The BMW Motorrad Navigator V and the BMW Motorrad Navigator VI can be secured against unauthorised use with a four-digit PIN (Garmin Lock). If this function is activated, while the Navigator is cradled on the vehicle and the ignition is switched on you are prompted to add the vehicle to the list of secured vehicles. If you answer "Yes" at this prompt, the Navigator saves the VIN of this vehicle in its internal memory. A maximum of five VINs can be saved in this way.
It is then no longer necessary to enter the PIN when the Navigator is switched on by

ignition ON on any of these vehicles.
If the Navigator is removed from the vehicle while switched on, a security prompt is issued asking for the PIN to be entered.

Screen brightness

Screen brightness is adjusted by the motorcycle while the unit is cradled. Manual input is not necessary.
Automatic setting can be switched off in the display settings for the Navigator if desired.

CARE

11

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CARE PRODUCTS

BMW Motorrad recommends that you use the cleaning and care products you can obtain from your authorised BMW Motorrad Retailer. The substances in BMW Care Products have been tested in laboratories and in practice; they provide optimised care and protection for the materials used in your vehicle.

ATTENTION

Use of unsuitable cleaning and care products

Damage to vehicle parts

- Do not use solvents such as cellulose thinners, cold cleaners, fuel or the like, and do not use cleaning products that contain alcohol.

ATTENTION

Use of strongly acidic or strongly alkaline cleaning agents

Damage to vehicle parts

- Dilute in accordance with the dilution ratio stated on the packaging of the cleaning agent.
- Do not use strongly acidic or strongly alkaline cleaning agents.

WASHING THE VEHICLE

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

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

Remove dirt from the fork legs at regular intervals.

Make sure that the vehicle is washed frequently, especially during the winter months.

To remove road salt, clean the vehicle and mounted parts, as applicable, with cold water immediately after every trip.

After a ride in the rain, when humidity is high or after the vehicle has been washed, condensation might form inside the headlight. This can cause temporary fogging on the headlight lens. If moisture is constantly present inside the headlight consult a specialist workshop, preferably an authorised BMW Motorrad retailer.

WARNING

Wet brake discs and brake pads after vehicle wash, after riding through water and in rainy conditions
Diminished braking effect, risk of accident
- Apply the brakes in good time to allow the friction and heat to dry the brake discs and brake pads.

ATTENTION

Effect of road salt intensified by warm water
Corrosion
- Use only cold water to wash off road salt.

ATTENTION

Damage due to high water pressure from high pressure cleaners or steam cleaners
Corrosion or short circuit, damage to labels, seals, hydraulic brake system, electrical system and the motorcycle seat
- Exercise restraint when using a steam jet or high pressure cleaning equipment.

CLEANING EASILY DAMAGED COMPONENTS

Plastics

ATTENTION

Use of unsuitable cleaning agents
Damage to plastic surfaces
- Do not use cleaning agents that contain alcohol, solvents or abrasives.
- Do not use insect-remover pads or cleaning pads with hard, scouring surfaces.

Clean the plastic parts with water and BMW plastic care product. This includes in particular:

–Windscreen and slipstream deflectors
–Headlight lens made of plastic
–Glass cover of the instrument cluster
–Black, unpainted parts

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

TFT display

Clean the TFT display with warm water and washing-up liquid. Then dry it with a clean cloth, e.g. a paper towel.

Chrome

Carefully clean chrome parts with plenty of water and motorcycle cleaner from the BMW Motorrad Care Products range. This is particularly important to counter the effects of road salt.
For an additional treatment, use BMW Motorrad metal polish.

Radiator

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

ATTENTION

Bending of radiator fins
Damage to radiator fins
• Take care not to bend the radiator fins when cleaning.

Rubber

Treat rubber components with water or BMW rubber-care products.

ATTENTION

Application of silicone sprays to rubber seals
Damage to the rubber seals
• Do not use silicone sprays or care products that contain silicon.

CARE OF PAINTWORK

Washing the vehicle regularly will help counteract the long-term effects of substances that can damage the paint, especially if your vehicle is ridden in areas with high air pollution or natural sources of dirt, for example tree resin or pollen. Remove particularly aggressive substances immediately, however, as otherwise the paint can be affected or become discoloured. Substances of this nature include spilt fuel,

oil, grease, brake fluid and bird droppings. For this, we recommend BMW Motorrad solvent cleaner followed by BMW Motorrad gloss polish for preservation.
Marks on the paintwork are particularly easy to see after the motorcycle has been washed. Remove stains of this kind at the earliest possible opportunity, using benzine or petroleum spirit on a clean cloth or ball of cotton wool. BMW Motorrad recommends using BMW tar remover for removing specks of tar. Then apply preserving agent to the areas treated in this way.

ATTENTION

Damage to paintwork due to metal polish
Risk of damage
- Do not treat painted surfaces and chrome-painted surfaces with metal polish.

PAINT PRESERVATION

If water no longer rolls off the paint, the paint must be preserved.
For paint preservation, BMW Motorrad recommends the use of BMW Motorrad gloss polish or agents containing carnauba wax or synthetic wax.

Do not use chrome polish to preserve chrome paints. Use only the agents recommended by BMW Motorrad.

LAYING UP THE MOTORCYCLE

- Clean the motorcycle.
- Fill the motorcycle's fuel tank.

Fuel additives clean the fuel injection system and the combustion zone. It is advisable to use fuel additives when the engine is operated with low-grade fuel or if the vehicle is to be out of use for a lengthy period of time. More information is available from your authorised BMW Motorrad retailer.

- Removing battery (➠ 217).
- Spray the brake and clutch lever pivots and the sidestand and centre-stand pivot mounts with a suitable lubricant.
- Coat bright metal and chrome-plated parts with an acid-free grease (e.g. Vaseline).

- Stand the motorcycle in a dry room in such a way that there is no load on either wheel (preferably using front-wheel and rear-wheel stands from BMW Motorrad).

RESTORING MOTORCYCLE TO USE

- Remove the protective wax coating.
- Clean the motorcycle.
- Install the battery.
- Note the checklist (➠ 147).

TECHNICAL DATA

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TROUBLESHOOTING CHART

The engine does not start.

Possible cause	Rectification
Side stand extended and gear engaged	Retract the side stand.
Gear engaged and clutch not disengaged	Select neutral or pull the clutch lever.
No fuel in tank	Refuel. (➠ 159)
Battery flat	Charge the battery when connected. (➠ 216)
Overheating protection for starter motor has been activated. Starter motor can only be operated for a limited period of time.	Allow the starter motor to cool down for approx. 1 minute before using it again.

The Bluetooth connection is not established.

Possible cause	Rectification
The steps required for pairing were not carried out.	Check the necessary steps for pairing in the operating instructions for the communication system.
The communication system was not connected automatically despite successful pairing.	Switch off the helmet's communication system and reconnect it after a minute or two.
Too many Bluetooth devices are saved on the helmet.	All pairing entries on the helmet are deleted (see the communication system operating instructions).
There are other vehicles with Bluetooth-capable devices in the vicinity.	Avoid simultaneously pairing with more vehicles.

Bluetooth connection is interrupted.

Possible cause	Rectification
The Bluetooth connection to the mobile end device is interrupted.	Switch off energy saving mode.
The Bluetooth connection to the helmet is interrupted.	Switch off the helmet's communication system and reconnect it after a minute or two.
The volume in the helmet cannot be adjusted.	Switch off the helmet's communication system and reconnect it after a minute or two.

The phonebook is not displayed in the TFT display.

Possible cause	Rectification
The phone book was not transmitted to the vehicle.	When pairing the mobile end device, confirm transmission of the phone data (➠ 122).

Active route guidance is not displayed in the TFT display.

Possible cause	Rectification
Navigation from the BMW Motorrad Connected App was not transmitted.	The BMW Motorrad Connected App is opened on the connected mobile end device prior to departure.
The route guidance cannot be started.	Secure the mobile device's data connection and check the map data on the mobile end device.

THREADED FASTENERS

Front wheel	Value	Valid
Quick-release axle in telescopic forks		
M12 x 20	30 Nm	
Clamping screw for quick-release axle in telescopic fork		
M8 x 35	19 Nm	
Radial brake caliper on telescopic forks		
M10 x 65	38 Nm	
Wheel-speed sensor to fork leg		
M6 x 16 Micro-encapsulated	8 Nm	

Rear wheel	Value	Valid
Rear wheel to wheel flange		
M10 x 1.25 x 40	**Tightening sequence: tighten in diagonally opposite sequence**	
	60 Nm	

Mirrors	Value	Valid
Mirror (locknut) to adapter		
M10 x 1.25	Left-hand thread, 22 Nm	

Mirrors	Value	Valid
Adapter to clamping block		
M10 x 14 - 4,8	25 Nm	
Mirror on handlebars		
M10 x 30	25 Nm	
M10 x 50	25 Nm	–with hand protector OE

Gearshift lever	Value	Valid
Peg to gearshift lever		
M6 x 20 micro-encapsulated	10 Nm	

Footbrake lever	Value	Valid
Peg to footbrake lever		
M6 x 20 micro-encapsulated	10 Nm	

Footrests	Value	Valid
Clamping block on footrest hinge		
M8 x 25	20 Nm	
Footrest on clamping block		
M6 x 20 / M6 x 12	10 Nm	

Handlebars	Value	Valid
Clamping block (handlebar clamp) to fork bridge		
M8 x 35	**Tightening sequence: in the forward direction of travel, tighten until seated**	
	19 Nm	
M8 x 65	**Tightening sequence: in the forward direction of travel, tighten until seated**	– with handlebar extension OE
	19 Nm	

FUEL

Recommended fuel grade	E5 E10 Super unleaded (max 15 % ethanol, E10/E15) 95 ROZ/RON 90 AKI
Alternative fuel grade	E5 E10 Normal unleaded (power- and consumption-related restrictions.) (max 15 % ethanol, E10/E15) 91 ROZ/RON 87 AKI
Usable fuel capacity	approx. 20 l
Reserve fuel	approx. 4 l
Fuel consumption	4.8 l/100 km, according to WMTC
–with power reduction OE	4.9 l/100 km, according to WMTC
CO2 emission	110 g/km, following world-wide harmonised motorcycle test cycle (WMTC)
–with power reduction OE	113 g/km, following world-wide harmonised motorcycle test cycle (WMTC)
Exhaust emissions standard	EU5

ENGINE OIL	
Engine oil, capacity	max 4 l, with filter change
Specification	SAE 5W-40, API SL / JASO MA2, Additives (e.g. molybdenum-based) are not permissible because they can attack coated components of the engine, BMW Motorrad recommends BMW Motorrad ADVANTEC Ultimate oil.
Engine oil, quantity for topping up	max 0.8 l, Difference between **MIN** and **MAX**

BMW recommends ADVANTEC ORIGINAL BMW ENGINE OIL

ENGINE	
Engine number location	Crankcase, bottom right, below starter motor
Engine type	A74B12M
Engine design	Air/liquid-cooled, two-cylinder four-stroke opposed-twin engine with two overlying, spur-gear-driven camshafts, a counterbalance shaft and BMW ShiftCam variable intake camshaft control
Displacement	1254 cm^3
Cylinder bore	102.5 mm
Piston stroke	76 mm
Compression ratio	12.5:1

Nominal capacity	100 kW, at engine speed: 7750 min^{-1}
–with power reduction OE	79 kW, at engine speed: 7750 min^{-1}
Torque	143 Nm, at engine speed: 6250 min^{-1}
–with power reduction OE	140 Nm, at engine speed: 5000 min^{-1}
Maximum engine speed	max 9000 min^{-1}
Idle speed	1050 min^{-1}, Engine at regular operating temperature

CLUTCH

Clutch type	Multiplate oil-bath clutch, anti-hopping

TRANSMISSION

Type of transmission	Claw-shift 6-speed gearbox with helical gearing
Gearbox transmission ratios	1.000 (60:60 teeth), Primary transmission ratio 1.650 (33:20 teeth), Transmission input ratio 2.438 (39:16 teeth), 1st gear 1.714 (36:21 teeth), 2nd gear 1.296 (35:27 teeth), 3rd gear 1.059 (36:34 teeth), 4th gear 0.943 (33:35 teeth), 5th gear 0.848 (28:33 teeth), 6th gear 1.061 (35:33 teeth), Transmission output ratio

FINAL DRIVE	
Type of final drive	Shaft drive with bevel gears
Gear ratio of final drive	2.91 (32/11 teeth)
Rear axle differential oil	SAE 70W-80, above 5 °C and below 5 °C

FRAME	
Frame type	Tubular steel frame with supporting drive unit, steel pipe rear frames
Type plate location	Frame, front left at steering head
Position of the vehicle identification number	Frame, front right below steering head

CHASSIS AND SUSPENSION

Front wheel	
Type of front suspension	BMW Telelever, with anti-dive top fork bridge, leading link pivot-mounted on engine and telescopic forks, central spring strut supported by leading link and frame
Design of front wheel suspension	Central shock absorber with helical spring
–with Dynamic ESA OE	Central shock absorber complete with torsion spring and header tank, electrically adjustable decompression and compression-stage damping
Spring travel, front	190 mm, at front wheel
–with sport suspension OE	210 mm, at front wheel
–with low-slung OE	158 mm, at front wheel

Rear wheel	
Type of rear suspension	Cast aluminium single swinging arm featuring BMW Motorrad Paralever
Type of rear-wheel suspension	Central spring strut with coil spring, adjustable rebound stage damping and spring preload
–with Dynamic ESA OE	Central spring strut with coil spring and reservoir, electrically adjustable rebound-stage and compression-stage damping, electrically adjustable spring preload
Spring travel at rear wheel	200 mm, at rear wheel
–with sport suspension OE	220 mm, at rear wheel
–with low-slung OE	170 mm, at rear wheel

BRAKES

Front wheel	
Type of front brake	Twin disc brake, floating brake discs, diameter 305 mm, 4-piston radial brake caliper
Brake-pad material, front	Sintered metal
Brake disc thickness, front	4.5 mm, When new min 4.0 mm, Wear limit
Play of brake controls (Front brake)	1.6...2.1 mm, on the piston

Rear wheel	
Type of rear brake	Single-disc brake, diameter 276 mm, 2-piston floating caliper
Brake-pad material, rear	Sintered metal
Brake disc thickness, rear	5.0 mm, When new min 4.5 mm, Wear limit
Blow-by clearance of the footbrake lever	1...1.5 mm, between the frame and the footbrake lever

WHEELS AND TYRES	
Recommended tyre combinations	Your authorised BMW Motorrad retailer will be happy to supply an up-to-date list of the approved wheel/tyre combinations.
Speed category, front/rear tyres	V, required at least: 240 km/h
Front wheel	
Front-wheel type	Aluminium cast wheel
–with cross-spoked wheels[OE] or –with cross-spoked wheels II[OE]	Cross-spoked wheel
Front-wheel rim size	3.00'' x 19''
Tyre designation, front	120/70 R 19
Load index, front tyre	min 60
Permissible front-wheel imbalance	max 5 g

Rear wheel	
Rear-wheel type	Aluminium cast wheel
–with cross-spoked wheels [OE] or –with cross-spoked wheels II [OE]	Cross-spoked wheel
Rear wheel rim size	4.50'' x 17''
Tyre designation, rear	170/60 R 17
Load index, rear tyre	min 72
Permissible rear-wheel imbalance	max 5 g
Tyre pressures	
Tyre pressure, front	2.5 bar, Tyre cold
Tyre pressure, rear	2.9 bar, Tyre cold

ELECTRICAL SYSTEM	
Electrical rating of on-board sockets	max 5 A, total for all sockets
Fuse 1	10 A, KOMBI, alarm system (DWA), ignition switch, OBD socket, coil cut-off relay
Fuse 2	7.5 A, Multifunction switch left, tyre pressure control (TPM), sensor box, seat heating
Fuse holder	50 A, Fuse 1: Voltage regulator

Battery	
Battery type	AGM battery (Absorbent Glass Mat), maintenance-free
–with M Lightweight battery OE	Lithium-ion battery
Battery rated voltage	12 V
–with M Lightweight battery OE	12 V
Battery rated capacity	14 Ah
–with M Lightweight battery OE	10 Ah
Spark plugs	
Spark plugs, manufacturer and designation	NGK LMAR8AI-10
Lighting	
Bulb for high-beam headlight	
–without control for headlight OE	LED
–with control for headlight OE	H7 / 12 V / 55 W
Bulbs for the low-beam headlight	
–without control for headlight OE	LED
–with control for headlight OE	H7 / 12 V / 55 W
Bulb for parking light	
–without control for headlight OE	LED
–with control for headlight OE	W5W / 12 V / 5 W
Bulb for tail light/brake light	LED
Bulbs for turn indicators	LED

ANTI-THEFT ALARM

Activation time on arming	approx. 30 s
Alarm duration	approx. 26 s
Battery type (For Keyless Ride radio-operated key)	CR 2032

DIMENSIONS

Length of motorcycle	2207 mm, over spray guard
Height of motorcycle	1430...1490 mm, over windscreen, at DIN vehicle kerb weight
–with Rallye style [OE] –with low-slung [OE] or –with Edition [OE] –with low-slung [OE]	1330...1380 mm, over windscreen, at DIN vehicle kerb weight
–with Rallye style [OE] –with Rallye seat, low [OE] or –with Edition [OE] –with Rallye seat, low [OE]	1350...1400 mm, over windscreen, at DIN vehicle kerb weight
–with Rallye style [OE] –with sport suspension [OE] –with Rallye seat, low [OE]	1370...1420 mm, over windscreen, at DIN vehicle kerb weight
–with low-slung [OE]	1410...1470 mm, over windscreen, at DIN vehicle kerb weight
–with Rallye style [OE] –with two-up riding package [OE] –with sport suspension [OE]	1450...1510 mm, over windscreen, at DIN vehicle kerb weight

Width of motorcycle	952 mm, with mirrors 895 mm, without mounted parts
–with hand protector OE	980 mm, with hand protectors
Height of rider's seat	850...870 mm, without rider, at DIN unladen weight
–with low-slung OE –with rider's seat, low OE	800...820 mm, without rider, at DIN unladen weight
–with low-slung OE –with rider's seat, low OE –with seat heating OE	805...825 mm, without rider, at DIN unladen weight
–with rider's seat, low OE	820...840 mm, without rider, at DIN unladen weight
–with rider's seat, low OE –with seat heating OE	825...845 mm, without rider, at DIN unladen weight
–with low-slung OE	830...850 mm, without rider, at DIN unladen weight
–with low-slung OE –with Rallye seat, low OE	840 mm, without rider, at DIN unladen weight
–with Rallye seat, low OE	860 mm, without rider, at DIN unladen weight
–with two-up riding package OE –with sport suspension OE	870...890 mm, without rider, at DIN unladen weight
–with sport suspension OE –with Rallye seat, low OE	880 mm, without rider, at DIN unladen weight

Rider's inside-leg arc, heel to heel	1870...1910 mm, without rider, at DIN vehicle kerb weight
–with low-slung OE –with rider's seat, low OE	1790...1830 mm, without rider, at DIN vehicle kerb weight
–with rider's seat, low OE	1820...1860 mm, without rider, at DIN vehicle kerb weight
–with low-slung OE	1830...1870 mm, without rider, at DIN vehicle kerb weight
–with low-slung OE –with Rallye seat, low OE	1840 mm, without rider, at DIN vehicle kerb weight
–with low-slung OE –with rider's seat, low OE –with seat heating OE	1840...1860 mm, without rider, at DIN vehicle kerb weight
–with Rallye seat, low OE	1880 mm, without rider, at DIN vehicle kerb weight
–with low-slung OE –with seat heating OE or –with rider's seat, low OE –with seat heating OE	1880...1900 mm, without rider, at DIN vehicle kerb weight
–with two-up riding package OE –with sport suspension OE	1910...1950 mm, without rider, at DIN vehicle kerb weight
–with sport suspension OE –with Rallye seat, low OE	1920 mm, without rider, at DIN vehicle kerb weight
–with seat heating OE	1920...1940 mm, without rider, at DIN vehicle kerb weight

WEIGHTS	
Vehicle kerb weight	249 kg, DIN unladen weight, ready for road 90 % load of fuel, without OE
Permissible gross vehicle weight	465 kg
Maximum payload	216 kg

PERFORMANCE FIGURES	
Top speed	>200 km/h
–with power reduction OE	204 km/h
–with case OA	180 km/h
–with topcase OA	180 km/h

SERVICE

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REPORTING SAFETY-RELEVANT DEFECTS

–with Canada export NV

If you think that your motorcycle has a fault which may cause an accident, injury or death, you must inform the NHTSA (National Highway Traffic Safety Administration) immediately and BMW of North America, LLC.

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

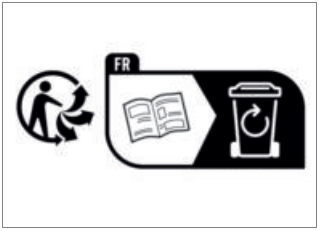
You can contact the NHTSA by calling the Vehicle Safety hotline on 1–888–327–4236 (teletypewriter TTY for the hearing impaired: 1–800–424–9153) for free, by visiting the website at http:// www.safercar.gov or by writing to Administrator, NHTSA, 400 Seventh Street, SW., Washington, DC 20590. Further information on vehicle safety is available at http:// www.safercar.gov.

Canadian customers who wish to report a safety-related defect to Transport Canada, Defect Investigations and Recalls can call the toll-free hotline 1–800–333–0510. You can also obtain other information about motor vehicle safety from http:// www.tc.gc.ca/ roadsafety.

RECYCLING

–with France export[NV]

Disposal of the rider's manual



Dispose of this rider's manual by depositing it in the container provided for the purpose.

BMW MOTORRAD SERVICE

BMW Motorrad has an extensive network of retailers in place to look after you and your motorcycle in more than 100 countries. Authorised BMW Motorrad retailers have the technical information and the technical know-how to carry out reliably all preventive maintenance and repair work on your BMW.
You can locate the nearest authorised BMW Motorrad retailer by visiting our website: **bmw-motorrad.com**.

WARNING

Maintenance and repair work not in compliance with correct procedure
Risk of accident due to consequential damage
- BMW Motorrad recommends having work of this nature carried out on the vehicle by a specialist workshop, preferably an authorised BMW Motorrad dealer.

In order to help ensure that your BMW is always in optimum condition, BMW Motorrad recommends compliance with the maintenance intervals specified for your motorcycle.
Have all preventive maintenance and repair work carried out confirmed in the "Service" chapter in this manual.
Evidence of regular preventive maintenance is essential for generous treatment of claims submitted after the warranty period has expired.

Your authorised
BMW Motorrad retailer
can provide information on
BMW Motorrad services and
the work undertaken as part of
each service.

BMW MOTORRAD SERVICE HISTORY

Entries

Maintenance work that has
been carried out is entered in
the proof of maintenance. The
entries are like a Service Book-
let and provide proof of regular
maintenance.
When an entry is made in the
electronic service booklet of
the vehicle, service-relevant
data is saved in the central IT
systems of BMW AG, Munich,
Germany.
If there is a change in vehicle
ownership, the data saved
in the electronic service
booklet can also be viewed
by the new vehicle owner. A
BMW Motorrad retailer or a
specialist workshop can also
view data that is stored in the
electronic service booklet.

Objection

The vehicle owner can object
to entries being made by the
BMW Motorrad retailer or a
specialist workshop in the elec-
tronic service booklet along
with the corresponding storage
of data in the vehicle and trans-
fer of data to the vehicle man-
ufacturer for the period of time
that they are the vehicle owner.
In this instance, no entry is
made in the electronic service
booklet of the vehicle.

BMW MOTORRAD MOBILITY SERVICES

As owner of a new BMW
vehicle, in circumstances in
which assistance is required
you can benefit from the
protection afforded by the
various BMW Motorrad
mobility services (e.g. Mobile
Service, breakdown service,
vehicle recovery service).
Your authorised
BMW Motorrad retailer
will be happy to provide
information about the mobility
services available to you.

MAINTENANCE WORK

BMW pre-delivery check

Your authorised BMW Motorrad retailer conducts the BMW pre-delivery check before handing over the vehicle to you.

BMW Running-in Check

The BMW running-in check has to be performed when the motorcycle has covered between 500 km and 1200 km.

BMW Motorrad Service

The BMW Motorrad Service is carried out once a year; the extent of servicing can vary, depending on the age of the vehicle and the distance it has covered. Your authorised BMW Motorrad retailer confirms that the service work has been carried out and enters the date when the next service will be due.
Riders who cover long distances in a year might have to bring in their vehicles for service before the next scheduled date. It is to allow for these cases that a maximum odometer reading is entered as well in the confirmation of service. Servicing has to be brought forward if this odometer reading is reached before the next scheduled date for the service.

The service display in the multifunction display reminds you about one month or 1000 km in advance when the time for a service is approaching, on the basis of the programmed values.

To find out more about service go to:
bmw-motorrad.com/service

The maintenance tasks necessary for your vehicle are set out in the maintenance schedule below.

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	x	x	x	x	x	x	x	x	x	x[c]	
9												x[d]	x[d]

1 BMW running-in check (including oil change and oil filter change)
2 BMW Motorrad Service, standard scope
3 Engine-oil change, with filter
4 Oil change in bevel gears rear
5 Check valve clearances
6 Replace all spark plugs
7 Replace air-filter element
8 Check or replace air filter element (if vehicle is used off-road)
9 Change brake fluid, entire system

a annually or every 10000 km (whichever comes first)
b every two years or every 20000 km (whichever comes first)
c if vehicle is used off-road, annually or every 10000 km (whichever comes first)
d for the first time after one year, then every two years

BMW MOTORRAD RUNNING-IN CHECK

BMW Motorrad running-in check

The tasks included in the BMW Motorrad running-in check are listed below. The actual scope of work applicable for your vehicle may vary.

–Set service date and remaining distance
–Performing vehicle test with BMW Motorrad diagnostic system
–Engine-oil change, with filter
–Changing oil in bevel gears
–Check the brake-fluid level, front wheel brake
–Check the brake-fluid level, rear wheel brake
–Check the coolant level
–Checking tyre tread depth and tyre pressures
–Check the lighting and signalling system
–Function test, engine start suppression
–Final inspection and check for road safety
–Performing vehicle test with BMW Motorrad diagnostic system
–Confirm the BMW service in the on-board literature

MAINTENANCE CONFIRMATIONS

BMW Motorrad Service standard scope

The tasks included in the BMW Motorrad Service standard scope are listed below. The actual scope of maintenance work applicable for your vehicle may vary.

- Performing vehicle test with BMW Motorrad diagnostic system
- Visual inspection of clutch system
- Visual inspection of the brake lines, brake hoses and connections
- Check the front brake pads and brake discs for wear
- Check the brake-fluid level, front wheel brake
- Check the rear brake pads and brake disc for wear
- Check the brake-fluid level, rear wheel brake
- Check the coolant level
- Check the side stand's ease of movement
- Check the ease of movement of the centre stand
- Check the tyre pressures and tread depth
- Check the tension of the spokes, adjust if necessary
- Check the lighting and signalling system
- Function test, engine start suppression
- Final inspection and check for road safety
- Performing vehicle test with BMW Motorrad diagnostic system
- Setting service-due date and countdown distance with BMW Motorrad diagnostic system
- Check the battery state of charge
- Confirm the BMW Motorrad service in the on-board literature

BMW Motorrad pre-delivery check

carried out

on_____

Stamp, signature

BMW Motorrad running-in check

carried out

on_____

odometer reading_____

Next service

at the latest

on_____

or, when reached earlier

odometer reading_____

Stamp, signature

BMW Motorrad service
carried out

on_____
odometer reading_____

Next service
at the latest
on_____
or, when reached earlier
odometer reading_____

Work performed

	Yes	No
BMW Motorrad service	☐	☐
Engine oil change with filter	☐	☐
Oil change in rear angular gearbox	☐	☐
Checking valve clearance	☐	☐
Renewing all spark plugs	☐	☐
Checking or replacing the air filter element (during service)	☐	☐
Replacing the air filter element	☐	☐
Changing the oil in the telescopic fork	☐	☐
Changing the brake fluid in the entire system	☐	☐

Notes

Stamp, signature

BMW Motorrad service
carried out

on_____
odometer reading_____

Next service
at the latest
on_____
or, when reached earlier
odometer reading_____

Work performed

	Yes	No
BMW Motorrad service	☐	☐
Engine oil change with filter	☐	☐
Oil change in rear angular gearbox	☐	☐
Checking valve clearance	☐	☐
Renewing all spark plugs	☐	☐
Checking or replacing the air filter element (during service)	☐	☐
Replacing the air filter element	☐	☐
Changing the oil in the telescopic fork	☐	☐
Changing the brake fluid in the entire system	☐	☐

Notes

Stamp, signature

BMW Motorrad service
carried out

on_____
odometer reading_____

Next service
at the latest
on_____
or, when reached earlier
odometer reading_____

Work performed

	Yes	No
BMW Motorrad service	☐	☐
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Oil change in rear angular gearbox	☐	☐
Checking valve clearance	☐	☐
Renewing all spark plugs	☐	☐
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Replacing the air filter element	☐	☐
Changing the oil in the telescopic fork	☐	☐
Changing the brake fluid in the entire system	☐	☐

Notes

Stamp, signature

BMW Motorrad service
carried out

on_____
odometer reading_____

Next service
at the latest
on_____
or, when reached earlier
odometer reading_____

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Replacing the air filter element	☐	☐
Changing the oil in the telescopic fork	☐	☐
Changing the brake fluid in the entire system	☐	☐

Notes

Stamp, signature

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carried out

on_____
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at the latest
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Renewing all spark plugs	☐	☐
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Replacing the air filter element	☐	☐
Changing the oil in the telescopic fork	☐	☐
Changing the brake fluid in the entire system	☐	☐

Notes

Stamp, signature

BMW Motorrad service
carried out

on_____
odometer reading_____

Next service
at the latest
on_____
or, when reached earlier
odometer reading_____

Work performed

	Yes	No
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Engine oil change with filter	☐	☐
Oil change in rear angular gearbox	☐	☐
Checking valve clearance	☐	☐
Renewing all spark plugs	☐	☐
Checking or replacing the air filter element (during service)	☐	☐
Replacing the air filter element	☐	☐
Changing the oil in the telescopic fork	☐	☐
Changing the brake fluid in the entire system	☐	☐

Notes

Stamp, signature

BMW Motorrad service
carried out

on_____
odometer reading_____

Next service
at the latest
on_____
or, when reached earlier
odometer reading_____

Work performed

	Yes	No
BMW Motorrad service	☐	☐
Engine oil change with filter	☐	☐
Oil change in rear angular gearbox	☐	☐
Checking valve clearance	☐	☐
Renewing all spark plugs	☐	☐
Checking or replacing the air filter element (during service)	☐	☐
Replacing the air filter element	☐	☐
Changing the oil in the telescopic fork	☐	☐
Changing the brake fluid in the entire system	☐	☐

Notes

Stamp, signature

BMW Motorrad service
carried out

on_____
odometer reading_____

Next service
at the latest
on_____
or, when reached earlier
odometer reading_____

Work performed

	Yes	No
BMW Motorrad service	☐	☐
Engine oil change with filter	☐	☐
Oil change in rear angular gearbox	☐	☐
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Renewing all spark plugs	☐	☐
Checking or replacing the air filter element (during service)	☐	☐
Replacing the air filter element	☐	☐
Changing the oil in the telescopic fork	☐	☐
Changing the brake fluid in the entire system	☐	☐

Notes

Stamp, signature

BMW Motorrad service
carried out

on_____
odometer reading_____

Next service
at the latest
on_____
or, when reached earlier
odometer reading_____

Work performed

	Yes	No
BMW Motorrad service	☐	☐
Engine oil change with filter	☐	☐
Oil change in rear angular gearbox	☐	☐
Checking valve clearance	☐	☐
Renewing all spark plugs	☐	☐
Checking or replacing the air filter element (during service)	☐	☐
Replacing the air filter element	☐	☐
Changing the oil in the telescopic fork	☐	☐
Changing the brake fluid in the entire system	☐	☐

Notes

Stamp, signature

BMW Motorrad service
carried out

on_____
odometer reading_____

Next service
at the latest
on_____
or, when reached earlier
odometer reading_____

Work performed

	Yes	No
BMW Motorrad service	☐	☐
Engine oil change with filter	☐	☐
Oil change in rear angular gearbox	☐	☐
Checking valve clearance	☐	☐
Renewing all spark plugs	☐	☐
Checking or replacing the air filter element (during service)	☐	☐
Replacing the air filter element	☐	☐
Changing the oil in the telescopic fork	☐	☐
Changing the brake fluid in the entire system	☐	☐

Notes

Stamp, signature

SERVICE CONFIRMATIONS

The table is intended as a record of maintenance and repair work, the installation of optional accessories and, if appropriate, technical campaign work.

Work performed	odometer reading	Date

Work performed	odometer reading	Date

DECLARATION OF CONFORMITY 295
CERTIFICATE FOR ELECTRONIC IMMOBILISER 298
CERTIFICATE FOR KEYLESS RIDE 301
CERTIFICATE FOR KEYLESS RIDE 303
CERTIFICATE FOR KEYLESS RIDE 305
CERTIFICATE FOR KEYLESS RIDE 307
CERTIFICATE FOR TYRE PRESSURE CONTROL (REIFENDRUCK-CONTROL, RDC) 309
CERTIFICATE FOR TFT INSTRUMENT CLUSTER 310

DECLARATION OF CONFORMITY

Manufacturer

Bayerische Motoren Werke Aktiengesellschaft
Petuelring 130, 80809 Munich, Germany

Hereby, BMW AG declares that the radio equipment components listed below are in compliance with Directive 2014/53/EU and with Radio Equipment Regulations 2017 of the United Kingdom. The full text of the EU/UK declarations of conformity are available at the following internet address:
bmw-motorrad.com/certification



Simplified UK Declaration of Conformity according to Radio Equipment Regulations 2017 of the United Kingdom.



Simplified EU Declaration of Conformity according to EU RED (2014/53/EU).

Technical information

Radio equipment	Component	Frequency band	Output/ Transmission Power
EWS4	EWS	134 kHz	50 dBµV/m
HUF5750	Keyless Ride	434,42 MHz	10 mW
HUF8465	Keyless Ride	134,45 kHz	42 dBµV/m
HUF5794	Keyless Ride	433,92 MHz	10 mW
HUF8485	Keyless Ride	134,45 kHz	42 dBµV/m
ZB001	Keyless Ride	134.5 kHz	allowed 66 dBµA/ m@ 10m
ZB002	Keyless Ride	433.92 MHz	max. 10 dBm e.r.p
TXBM-WMR	DWA	433.05 MHz - 434.79 MHz	18,8 dBm
RDC3	RDC	433.92 MHz	<13 mW
Wus Moto gen 3	RDC	433,05 MHz - 434,79 MHz	<10 mW e.r.p.
MC24MA4	RDC		
WCA Motorrad-Ladestaufach	Charging compartment	110 kHz - 115 kHz	< 6 W
ICC6.5in	Instrument Cluster	Bluetooth: 2402 MHz - 2480 MHz WLAN: 2412 MHz – 2462 MHz	Bluetooth: < 4 dBm WLAN: < 20 dBm

Radio equipment	Component	Frequency band	Output/ Transmission Power
ICC10in	Instrument Cluster	Bluetooth: 2402 MHz - 2480 MHz WLAN: 2402 MHz – 2472 MHz	Bluetooth: < +4 dBm WLAN: < +14 dBm
MRR e14FCR	ACC	76 - 77 GHz	Peak max. 32 dBm Nom max. 27 dBm
TL1P22	Intelligent emergency call	832 MHz - 862 MHz 880 MHz - 915 MHz 1710 MHz - 1785 MHz 1920 MHz - 1980 MHz 2500 MHz - 2570 MHz 2570 MHz - 2620 MHz GNSS: 1559 MHz-1610 MHz	23 dBm 33 dBm 30 dBm 24 dBm 23 dBm 23 dBm
MCR001	Audio system		

Declaration of Conformity

Radio equipment electronic immobiliser (EWS4)

For all countries without EU

Technical information
Frequency Band: 134 kHz
(Transponder: TMS37145 / Type DST80, TMS3705 Transponder Base Station IC)
Output Power: 50 dBµV/m

Manufacturer and Address
Manufacturer:
BECOM Electronics GmbH
Address: Technikerstraße 1, A-7442 Hochstraß

Argentina

RAMATEL
H-25246

Australia/New Zealand

R-NZ

Brunei

AITI
TA No: DTA-007061

United Arab Emirates

TRA
REGISTERED No:
ER89926/20

DEALER No:
DA96133I20

Philippiens

NTC
Type Approved
No.: ESD-RCE-2023298

South Africa

TA-2020/6131
ICASA
APPROVED

India

ETA-SD-20200905860

Belarus

TP BY

Indonesia

72790/SDPPI/2021
13349

Dilarang melakukan perubahan Spesifikasi yang dapat Menimbulkan gangguan fisik dan/atau elektromagnetik terhadap lingkungan sekitarnya

Paraquay

CONATEL

NR: 2020-11-I-0834

Singapore

Complies with
IMDA Standards
N3504-20

Taiwan

低功　電波　射性電機管　辦法
第十二條　經型式認證合格之低功率射頻電 機，非經許可，公司、商號或使用者均不得擅 自變更頻率、加大功率或變更原設計之特性及 功能。第十四條　低功率射頻電機之使用不 得影響飛航安全及干擾合法通信；經發現有干 擾現象時，應立即停用，並改善至無干擾時方 得繼續使用。 前項合法通信，指依電信法規定作業之無線電 通信。

Malaysia

MCMC

RFCL/47A/0920/S(20-3358)

Israel

מספר אישור אלחוטי של משרד התקשורת הוא 51-74908
אסור להחליף את האנטנה המקורית של המכשיר ולא
לעשות בו כל שינוי טכני אחר

United States (USA)

Contains FCC ID:
ODE-MREWS5012
FCC § 15.19 Labelling requirements
This device complies with part 15 of the FCC Rules and Industry Canada's licence-exempt RSS standard(s). Operation is subject to the following two conditions:

(1) this device may not cause interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

FCC § 15.21 Information to user

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

RF Exposure Requirements

To comply with FCC RF exposure compliance requirements, the device must be installed to provide a separation distance of at least 20 cm from all persons.

Serbia

P1620118300

Canada

Contains IC:
10430A-MREWS5012
This device complies with part 15 of the FCC Rules and Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:

(1) this device may not cause interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et
(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Vietnam

A1109091120AF04A3

Declaration of Conformity

Keyless Ride ECU

For all Countries without EU

Model name: HUF8485

Technical information
Frequenzy band: 134,45 kHz
Output/Transmission Power: 42 dBµV/m

Manufacturer and Address
Huf Hülsbeck &
Fürst GmbH & Co. KG
Steeger Str. 17,
42551 Velbert, Germany

Argentina

RAMATEL
H-27411

Morocco

AGREE PAR L'ANRT MAROC
Numéro d'agrément: MR00031290ANRT2022
Date d'agrément: 06/01/2022

Nigeria

Connection and use of this communications equipment is permitted by the Nigerian Communications Commission

United Arabic Emirates

TRA

TRA – United Arab Emirates
Dealer ID: DA36976/14
TA RTTE: ER04912/22
Model: HUF8485
Type: BMW

Malaysia

MCMC
HIDF17000037

Paraguay

CONATEL
2022-01-I-0052

Philippines

NTC
Type Approved
No. ESD-RCE-2228692

Pakistan

Approved by PTA
TAC NO: 9.122/2022
PTA
Pakistan Telecom Authority

South Africa

TA-2022/0251
ICASA
APPROVED

Oman

OMAN - TRA
R/13020/22
D100428

Vietnam

THACO AUTO
C900248
ICT

Singapore

Complies with IMDA Standards DA105282

Indonesia

81597/SDPPI/2022
13349

Canada
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.
(2) This device must accept any interference, 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;
(2) L'utilisateur de l'appareil doit acceptor 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. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference.
(2) This device must accept any interference received, including interference that may cause undesired operation.

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

Taiwan
取得審驗證明之低功率射頻器材，非經核准，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。低功率射頻器材之使用
不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前述合法通信，指依電信管理法規定作業之
無線電通信。低功率射頻器材須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾

Thailand



Declaration of Conformity

Keyless Ride Key

For all Countries without EU

Model name: HUF5794

Technical information
Frequenzy band: 433,92 MHz
Output/Transmission Power: 10 mW

Manufacturer and Address
Huf Hülsbeck &
Fürst GmbH & Co. KG
Steeger Str. 17,
42551 Velbert, Germany

Oman

OMAN - TRA
R/13021/22
D100428

Morocco

AGREE PAR L'ANRT MAROC
Numéro d'agrément: MR00031289ANRT2022
Date d'agrément: 06/01/2022

Nigeria

Connection and use of this communications equipment is permitted by the Nigerian Communications Commission

United Arabic Emirates

TRA

TRA – United Arab Emirates
Dealer ID: DA36976/14
TA RTTE: ER04909/22
Model: HUF5794
Type: BMW

Malaysia

MCMC
HIDF17000037

Paraguay

CONATEL
2022-01-I-0051

Philippines

NTC
Type Approved
No. ESD-RCE-2228693

Pakistan

Approved by PTA
TAC NO: 9.140/2022
PTA
Pakistan Telecom Authority

South Africa

TA-2022/0252
ICASA
APPROVED

Belarus

TPBY

Vietnam

THACO AUTO
C900248
ICT

Serbia

И005 22

Indonesia

81598/SDPPI/2022
13349

Singapore

Complies with IMDA Standards DA105282

Canada

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.
(2) This device must accept any interference, 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;
(2) L'utilisateur de l'appareil doit acceptor 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. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference.
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CAUTION:
Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Taiwan

取得審驗證明之低功率射頻器材，非經核准，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。低功率射頻器材之使用
不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前述合法通信，指依電信管理法規定作業之
無線電通信。低功率射頻器材須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾

Thailand

กสทช.

เครื่องวิทยุคมนาคมนี้ ได้รับยกเว้น ไม่ต้องได้รับใบอนุญาตให้มี ใช้ซึ่งเครื่องวิทยุคมนาคม หรือตั้งสถานีวิทยุคมนาคมตามประกาศ กสทช. เรื่อง เครื่องวิทยุคมนาคม และสถานีวิทยุคมนาคมที่ได้รับยกเว้นไม่ต้องได้รับใบอนุญาต วิทยุคมนาคมตามพระราชบัญญัติวิทยุคมนาคม พ.ศ. 2498

กสทช. | โทรคมนาคม
กำกับดูแลเพื่อประชาชน
Call Center 1200 (โทรฟรี)

Declaration of Conformity

Keyless Ride ECU

For all Countries without EU

Model name: HUF8465

Technical information
Frequenzy band: 134,45 kHz
Output/Transmission Power:
42 dBµV/m

Manufacturer and Address
Huf Hülsbeck &
Fürst GmbH & Co. KG
Steeger Str. 17,
42551 Velbert, Germany

Argentina

RAMATEL
H-27885

Morocco

AGREE PAR L'ANRT MAROC
Numéro d'agrément: MR 9389 ANRT 2014
Date d'agrément: 24/06/2014

Nigeria

Connection and use of this communications equipment is permitted by the Nigerian Communications Commission

United Arabic Emirates

TRA

TRA – United Arab Emirates
Dealer ID: DA36976/14
TA RTTE: ER59309/17
Model: HUF8465
Type: ELV incl. ECU

Malaysia

MCMC
HIDF17000037

Philippines

NTC
Type Approved
No. ESD-1409281C

South Africa

TA-2014/886
ICASA
APPROVED

Vietnam

THACO AUTO
C900248
ICT

Indonesia

81555/SDPPI/2022
13349

Paraguay

CONATEL
2020-05-I-0278

Singapore

Complies with
IMDA Standards
DA101586

Canada
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.
(2) This device must accept any interference, 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;
(2) L'utilisateur de l'appareil doit acceptor 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. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference.
(2) This device must accept any interference received, including interference that may cause undesired operation.

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

Taiwan
取得審驗證明之低功率射頻器材，非經核准，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。低功率射頻器材之使用
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Thailand



Declaration of Conformity

Keyless Ride Key

For all Countries without EU

Model name: HUF5750

Technical information
Frequenzy band: 434,42 MHz
Output/Transmission Power: 10 mW

Manufacturer and Address
Huf Hülsbeck &
Fürst GmbH & Co. KG
Steeger Str. 17,
42551 Velbert, Germany

Argentina

CNC COMISIÓN NACIONAL DE COMUNICACIONES
H-17115

Morocco

AGREE PAR L'ANRT MAROC
Numéro d'agrément: MR 8851 ANRT 2014
Date d'agrément: 17/01/2014

Nigeria

Connection and use of this communications equipment is permitted by the Nigerian Communications Commission

United Arabic Emirates

TRA

TRA – United Arab Emirates
Dealer ID: DA36976/14
TA RTTE: ER57698/17
Model: HUF5750
Type: RF transceiver for BMW Motorcycles

Malaysia

MCMC
HIDF17000037

Paraguay

CONATEL
2020-05-I-0277

Philippines

NTC
Type Approved
No. ESD-1408693C

Belarus

TP BY

South Africa

TA-2013/1674
ICASA
APPROVED

Vietnam

THACO AUTO
C900248
ICT

Singapore

Complies with IMDA Standards DA101586

Indonesia

81556/SDPPI/2022
13349

Serbia

И005 19

Canada
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.
(2) This device must accept any interference, 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 :

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(2) L'utilisateur de l'appareil doit acceptor 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. Operation is subject to the following two conditions:

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

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

Taiwan
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不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前述合法通信，指依電信管理法規定作業之
無線電通信。低功率射頻器材須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾

Thailand



Certification Tire Pressure Control (TPC)

FCC ID: MRXBC54MA4
IC: 2546A-BC54MA4

This device complies with Part 15 of the FCC Rules and with Industry Canada license-exempt RSS standard(s).
Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and
(2) This device must accept any interference received, including interference that may cause undesired operation.

WARNING: Changes or modifications not expressively approved by the party responsible for compliance could void the user's authority to operate the equipment. The term “IC:” before the radio certification number only signifies that Industry Canada technical specifications were met.

FCC ID: MRXBC5A4
IC: 2546A-BC5A4

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

(1) l'appareil ne doit pas produire de brouillage, et
(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

WARNING: Changes or modifications not expressively approved by the party responsible for compliance could void the user's authority to operate the equipment. The term “IC:” before the radio certification number only signifies that Industry Canada technical specifications were met.

Declaration of Conformity

Radio equipment TFT instrument cluster

For all Countries without EU

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

Manufacturer and Address
Manufacturer:
Robert Bosch GmbH
Address: Robert Bosch Str. 200,
31139 Hildesheim, Germany

Turkey
Robert Bosch GmbH, ICC6.5in tipi telsiz sisteminin 2014/53/EU nolu yönetmeliğe uygun olduğunu beyan eder. AB Uygunluk Beyanı'nın tam metni, aşağıdaki internet adresinden görülebilir: http://cert.bosch-carmultimedia.net

Argentina

RAMATEL
C-24711

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

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.

Korea

적합성평가에 관한 고시
R-CMM-RBR-ICC65IN
상호 : Robert Bosch GmbH모델명 : ICC6.5in
기자재명칭 : 특정소출력 무선기기(무선데이터통신시스템용 무선기기)
제조자 및 제조국가 : Robert Bosch GmbH / 포르투갈
제조년월 : 제조년월로 표기
이 기기는 업무용 환경에서 사용할 목적으로적합성평가를 받은 기기로서 가정용 환경에
서 사용하는 경우 전파간섭의 우려가 있습니
다.

Mexico

La operación de este equipo está sujeta a las siguientes dos condiciones:
(1) es posible que este equipo o dispositivo no cause interferencia perjudicial y
(2) este equipo o dispositivo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operación no deseada.

Taiwan, Republic of

根據 NCC 低功率電波輻射性電機管理辦法 規定: 第十二條
經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。
第十四條
低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。
前項合法通信，
指依電信法規定作業之無線電通信。
低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

Thailand

เครื่องโทรคมนาคมและอุปกรณ์ นี้
มีความสอดคล้องตามข้อกำหนดของ กทช.
(This telecommunication equipments is in compliance with NTC requirements)

United States (USA)

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.

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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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Details described or illustrated in this booklet may differ from the vehicle's actual specification as purchased, the accessories fitted or the national-market specification. No claims will be entertained as a result of such discrepancies.
Dimensions, weights, fuel consumption and performance data are quoted to the customary tolerances.
The right to modify designs, equipment and accessories is reserved.
Errors and omissions excepted.

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Original rider's manual, printed in Germany.

Important data for refuelling:

Fuel	
Recommended fuel grade	E5 E10 Super unleaded (max 15 % ethanol, E10/E15) 95 ROZ/RON 90 AKI
Alternative fuel grade	E5 E10 Normal unleaded (power- and consumption-related restrictions.) (max 15 % ethanol, E10/E15) 91 ROZ/RON 87 AKI
Usable fuel capacity	approx. 20 l
Reserve fuel	approx. 4 l
Tyre pressures	
Tyre pressure, front	2.5 bar, Tyre cold
Tyre pressure, rear	2.9 bar, Tyre cold

For further information on all aspects of your vehicle, visit: **bmw-motorrad.com**

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