BMW
MOTORRAD

RIDER'S MANUAL (US MODEL)

R 1250 R

MAKE LIFE A RIDE

Vehicle data

Model

Vehicle identification number

Color number

First registration

License plate

Retailer data

Contact in Service

Ms./Mr.

Phone number

Retailer's address/Phone (company stamp)

YOUR BMW.

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

About these operating instructions

Read these operating instructions before starting your new BMW. It contains important notes about operating the vehicle that will enable you to make full use of the technical assets of your BMW.

You will also obtain preventive maintenance and care instructions, which are beneficial to operating and road safety and help retain the value of your vehicle as much as possible.

If you should decide to sell your BMW one day, please remember to hand over these operating instructions as well. They are an important part of your vehicle.

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

BMW Motorrad.

GENERAL INSTRUCTIONS

01

4 GENERAL INSTRUCTIONS

QUICK & EASY REFERENCE

This rider's manual has been designed to provide quick and efficient orientation. The quickest way for you to find information on specific topics is to consult the comprehensive index at the end of the rider's manual. If you would like to start with a quick overview of your motorcycle, this information has been provided in chapter 2. All preventive maintenance and repair procedures carried out on your motorcycle will be documented in the Service chapter. Documentation of the maintenance work performed is a prerequisite for generous treatment of claims.

ABBREVIATIONS AND SYMBOLS

CAUTION Hazard with low risk. Failure to avoid this hazard can result in minor or moderate injury.

WARNING Hazard with moderate risk. Failure to avoid this hazard can result in death or serious injury.

DANGER Hazard with high risk. Failure to avoid this hazard results in death or serious injury.

ATTENTION Special instructions and precautionary measures. Non-compliance can cause damage to the vehicle or accessories and warranty claims may be denied as a result.

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

- • Instruction.
- » Result of an activity.
- Reference to a page with more detailed information.
- ◁ Indicates the end of accessory or equipment-dependent information.
- Tightening torque.
- Technical data.
- NV National-market version.

OE	Optional equipment. BMW Motorrad optional equipment is already completely installed during motorcycle production.
OA	Optional accessories. BMW Motorrad optional accessories can be purchased and retrofitted at your authorized BMW Motorrad retailer.
ABS	Anti-Lock Brake System.
ASC	Automatic Stability Control.
EWS	Electronic immobilizer.
D-ESA	Electronic chassis and suspension adjustment.
DTC	Dynamic Traction Control.
DWA	Anti-theft alarm.
TPC	Tire Pressure Control (TPC).

EQUIPMENT

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

TECHNICAL DATA

All dimensions, weights and performance data contained in these operating instructions refer to the German Institute for Standardization i.e. DIN (Deutsches Institut für Normung e. V.) and comply with their tolerance specifications. The technical data and specifications in these operating instructions serve as points of reference. The vehicle-specific

data may vary, for instance due to the selected optional equipment, national-market version or country-specific measuring procedures. Detailed values can be obtained from the registration documents or requested from your BMW Motorrad retailer or other qualified service partner or specialist workshop. The information on the vehicle documents always takes precedence over the information in these operating instructions.

TIMELINESS OF THE STATUS OF THIS MANUAL

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

ADDITIONAL SOURCES OF INFORMATION

Authorized BMW Motorrad retailer

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

Internet

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

CERTIFICATES AND OPERATING PERMITS

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

DATA MEMORY

General

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

units are required for safe vehicle operation or provide driving assistance, such as driver assistance systems. Control units also make comfort and infotainment functions possible. Information about the stored or exchanged data can be obtained from the vehicle manufacturer, such as in the form of a separate booklet.

Personal references
Every vehicle is marked with a unique vehicle identification number. Depending on the country, the vehicle owner can be identified using the vehicle identification number and license plate and with the help of the relevant authorities. There are also other ways to trace data obtained from the vehicle back to the rider or vehicle owner, such as via the used ConnectedDrive Account.

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

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

the data stored in the vehicle for a fee if required.
The vehicle data is read out via the power socket required by law for on-board diagnosis (OBD) in the vehicle.

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

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

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

The data is necessary for providing control unit functions. In addition, it is used by the vehicle manufacturer to detect and eliminate malfunctions as well as to optimize vehicle functions.
The majority of this data is temporary and is processed only within the vehicle itself.

Only a small amount of event-driven data is stored in the event data recorder and fault memory.
When a vehicle is serviced, such as for repairs, servicing processes, warranty cases and quality assurance measures, this technical information can be read out from the vehicle together with the vehicle identification number.
The information can be read out by a BMW Motorrad retailer or other qualified service partner or specialist workshop. The power socket required by law for on-board diagnosis (OBD) in the vehicle is used to read out the data.
The data is collected, processed and used by the respective service network locations. The data documents the vehicle's technical states and helps with fault finding, compliance with warranty obligations and quality improvements.
The manufacturer also has product monitoring obligations arising from product liability law. The vehicle manufacturer requires technical data from the vehicle in order to fulfill these obligations. The data from the vehicle can also be used to verify customer warranty and guarantee claims.
The fault memory and event data recorder in the vehicle can be reset by a BMW Motorrad retailer or other qualified service partner or specialist workshop as part of repair work or servicing.

Data input and data transfer in the vehicle

General

Depending on the equipment, comfort settings and individualized settings in the vehicle can be saved and changed or reset at any time.
Examples of these include:
– Windshield position settings
– Chassis and suspension adjustment settings

It is possible to introduce data into the vehicle entertainment and communication system via a smartphone, for instance. Depending on the individual equipment, this includes:
– Multimedia data, such as music for playback
– Address book data for use in conjunction with a communication system or integrated navigation system
– Entered navigation destinations

– Data about the use of internet services. This data can be stored locally in the vehicle or is on a device connected to the vehicle, such as a smartphone, USB stick or MP3 player. If this data is saved in the vehicle, it can be deleted at any time.

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

Integrating mobile end devices

Depending on the equipment, mobile end devices connected to the vehicle, such as smartphones, are controlled using the vehicle's controls.

This enables audio and visual output from mobile end devices through the multimedia system. At the same time, certain information is transmitted to the mobile end device. This includes for instance position data and other general vehicle data, depending on the type of integration, and makes it possible to optimize the use of selected apps, such as those for navigation or music playback. The way the data is processed further is determined by the provider of the particular app used. The range of possible settings depends on the particular app and the operating system of the mobile end device.

Services

General

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

Vehicle manufacturer services

In the case of the vehicle manufacturer's online services, the particular functions are described at the appropriate location, such as in the Rider's Manual or on manufacturer's website. The relevant legal information on data privacy is

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

Services of other providers

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

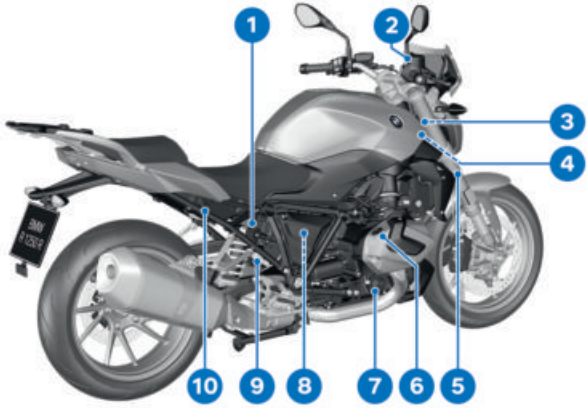
OVERVIEWS

02

OVERALL VIEW, LEFT SIDE

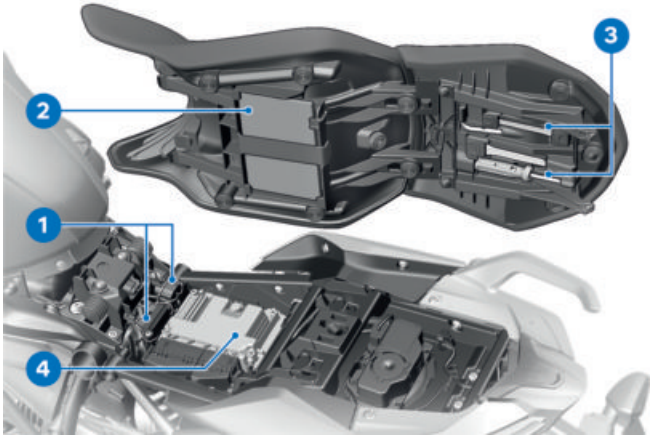
1 Clutch fluid reservoir (➠ 169)
2 Fuel filler opening (➠ 132)
3 Seat lock (➠ 80)
4 Adjuster for rear damping (at the bottom on the spring strut) (➠ 115)

OVERALL VIEW, RIGHT



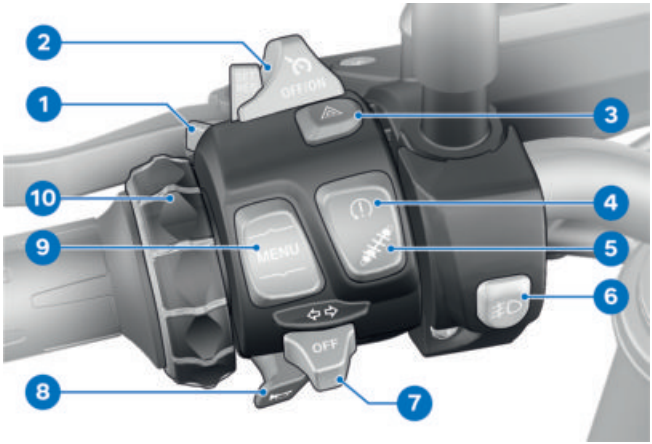
1 Adjuster for spring preload, rear (➠ 115)
2 Brake fluid reservoir for front wheel brake (➠ 167)
3 Vehicle identification number (on steering head at right)
Type plate (on steering head at left)
4 Coolant level indicator (➠ 169)
Coolant tank (➠ 169)
5 Tire pressure table
6 Oil filler opening (➠ 164)
7 Engine oil indicator (➠ 162)
8 Behind the side trim panel:
Battery (➠ 188)
Remote positive terminal (➠ 187)
Diagnostic socket (➠ 194)
9 Brake fluid reservoir for rear wheel brake (➠ 168)
10 Onboard power socket (➠ 198)

UNDERNEATH THE SEAT



1 Fuses (➠ 192)
2 Rider's manual
3 Standard tool kit (➠ 161)
4 Payload table

MULTIFUNCTION SWITCH, LEFT

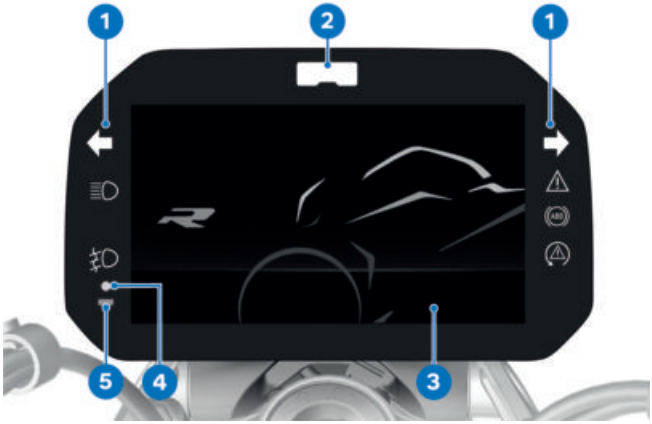


1 High beams and headlight flasher (➠ 61)
2 –with cruise control[OE] Cruise control (➠ 71).
3 Hazard warning lights (➠ 62)
4 ASC/DTC (➠ 64)
5 –with Dynamic ESA[OE] Dynamic ESA adjustment options (➠ 65)
6 –with LED additional headlight[OA] Auxiliary headlights (➠ 62).
7 Turn signals (➠ 63)
8 Horn
9 Rocker button MENU (➠ 85)
10 Multi-Controller Operating elements (➠ 85)

MULTIFUNCTION SWITCH, RIGHT

1 –with heated grips[OE]
Heated grips (➠ 79).
2 Riding mode (➠ 68)
3 Emergency-off switch
(➠ 60)
4 Starter button
Starting the engine
(➠ 123).

INSTRUMENT CLUSTER



1 Indicator and warning lights (➠ 22)

2 –with riding modes Pro OE Shiftpoint light (➠ 128)

3 TFT display (➠ 23) (➠ 24)

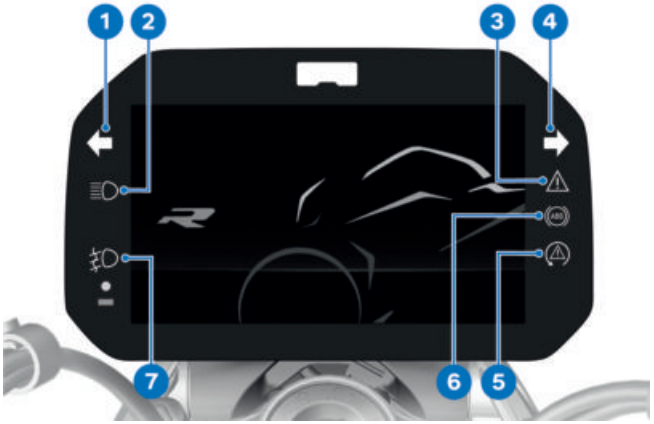
4 Anti-theft alarm system LED
–with anti-theft alarm system (DWA) OE
Alarm signal (➠ 77)
–with Keyless Ride OE
Indicator light for radio-operated key
Turning on the ignition (➠ 57).

5 Photodiode (for adjusting brightness of instrument lighting)

DISPLAYS

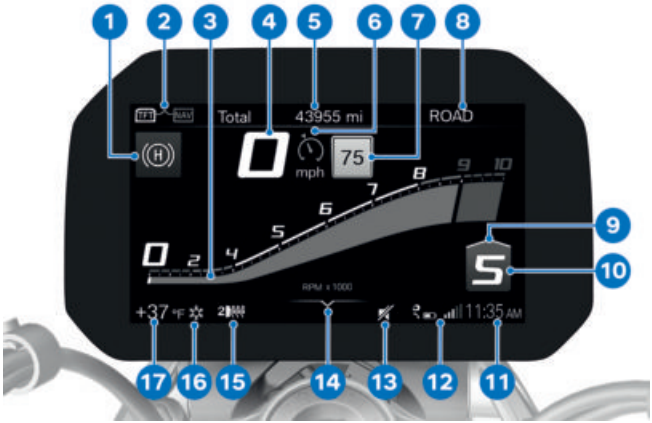
03

INDICATOR AND WARNING LIGHTS



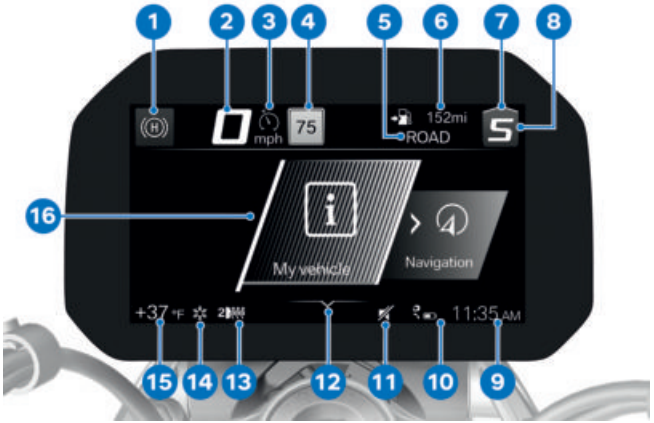
1 Turn signal, left (➠ 63)
2 High beams (➠ 61)
3 General warning light (➠ 25)
4 Turn signal, right (➠ 63)
5 ASC (➠ 46)
–with riding modes Pro[OE]
DTC (➠ 46)
6 ABS (➠ 45)
7 –with LED additional headlight[OA]
Auxiliary headlights (➠ 62).

TFT DISPLAY IN PURE RIDE VIEW



1 Hill Start Control (➠ 49)
2 Changing operating focus (➠ 89)
3 Tachometer (➠ 91)
4 Speedometer
5 Status line (➠ 89)
6 –with cruise control[OE] Cruise control (➠ 71).
7 Speed Limit Info (➠ 91)
8 Riding mode (➠ 68)
9 Upshift recommendation (➠ 92)
10 Gear display, "N" (Neutral) is displayed in the neutral position.
11 Clock (➠ 93)
12 Connection status (➠ 95)
13 Muting (➠ 92)
14 Operating assistance
15 Heated grip settings (➠ 79)
16 Outside temperature warning (➠ 32)
17 Outside temperature

TFT DISPLAY IN THE VIEW MENU



1 Hill Start Control (➠ 49)
2 Speedometer
3 –with cruise control[OE] Cruise control (➠ 71).
4 Speed Limit Info (➠ 91)
5 Riding mode (➠ 68)
6 Status line (➠ 89)
7 Upshift recommendation (➠ 92)
8 Gear display, "N" (Neutral) is displayed in the neutral position.
9 Clock
10 Connection status
11 Muting (➠ 92)
12 Operating assistance
13 Heated grip settings (➠ 79)
14 Outside temperature warning (➠ 32)
15 Outside temperature
16 Menu area

INDICATOR LIGHTS

Layout

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

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

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

Check Control display

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

– Green CHECK OK **1**: no message, values optimal.
– White circle with small "i" **2**: information.
– Yellow warning triangle **3**: warning message, value not optimal.
– Red warning triangle **3**: warning message, value critical

Value display

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

Color of the icon

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

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

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

Check Control dialog

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

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

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

–Check Control messages are dynamically attached as additional tabs to the pages in the `My vehicle` (➠ 87) menu. The message can be called up again as long as the error persists.

Overview of warning indicators

Indicator and warning lights	Display text	Meaning
	 is displayed.	Outside temperature warning (➠ 32)
 lights up yellow.	 Remote key not in range.	Key remote outside of the reception area (➠ 32)
 lights up yellow.	 Keyless Ride failure!	Keyless Ride failure (➠ 33)
 lights up yellow.	 Remote key battery at 50%.	Replacing the battery of the key fob transmitter (➠ 33)
	 Remote key battery low.	
	 is displayed in yellow.	Vehicle voltage too low (➠ 33)
	 Vehicle voltage low.	
 lights up yellow.	 is displayed in yellow.	Vehicle voltage critical (➠ 34)
	 Vehicle voltage critical!	
 flashes yellow.	 is displayed in yellow.	Charging voltage critical (➠ 34)
	 Battery critically low!	
 lights up yellow.	 The faulty light source is displayed.	Light source defect (➠ 35)
 lights up yellow.	 Light control failure!	Light control unit failed (➠ 36)
	 Anti-theft alarm batt. capacity low.	Anti-theft alarm battery low charge (➠ 36)

Indicator and warning lights	Display text	Meaning
	 Anti-theft alarm battery discharged.	Anti-theft alarm battery discharged (➠ 36)
	 Anti-theft alarm system failure.	DWA failure (➠ 37)
	 Engine oil level Check engine oil level.	Electronic oil-level check: check engine oil level (➠ 37)
lights up red.	 Coolant temperature too high!	Coolant temperature too high (➠ 38)
	 Engine!	Drive malfunction (➠ 38)
 lights up yellow.	 No communication with engine control.	Engine control failure (➠ 39)
 lights up.		
 lights up yellow.	 Fault in the engine control.	Engine in emergency-operation mode (➠ 39)
 flashes red.	 Serious fault in the engine control.	Serious fault in the engine control (➠ 39)
 lights up yellow.	 is displayed in yellow.	Tire pressure at the limits of the permissible tolerance (➠ 41)
	 Tire pressure not at set-point.	

Indicator and warning lights	Display text	Meaning
 flashes red.	 is displayed in red.	Tire pressure is outside the approved tolerance range (➠ 42)
	 `Tire pressure not at set-point.`	
	 `Tire Press. Monitor. Loss of pressure.`	
	 `"---"`	Transmission fault (➠ 42)
 lights up yellow.	 `"---"`	Sensor faulty or system fault (➠ 43)
 lights up yellow.	 `Tire Press. Monitor failure!`	Tire pressure control (TPC) failed (➠ 43)
 lights up yellow.	 `TPM sensors battery low.`	Battery of the tire pressure sensor weak (➠ 44)
	 `Fall sensor faulty.`	Fall sensor defective (➠ 44)
 lights up yellow.	 `Side stand monitoring faulty`	Side stand monitoring faulty (➠ 44)
 flashes.		ABS self-diagnosis not completed (➠ 44)
 lights up yellow.	 `Limited ABS availability!`	ABS fault (➠ 45)
 lights up.		

Indicator and warning lights	Display text	Meaning
 lights up yellow.	 ABS failure!	ABS failure (➠ 45)
 lights up.		
 lights up.	 ABS Pro failure!	ABS Pro failure (➠ 46)
 flashes rapidly.		ASC/DTC intervention (➠ 46)
 flashes slowly.		ASC/DTC self-diagnosis not completed (➠ 46)
 lights up.	 Off!	ASC/DTC switched off (➠ 47)
	 Traction control deactivated.	
lights up.	 Traction control limited.	Limited ASC/DTC availability (➠ 47)
 lights up.	 Traction control failure!	ASC/DTC error (➠ 47)
 lights up yellow.	 Spring strut adjustment faulty!	D-ESA fault (➠ 48)
	 Low fuel.	Fuel down to reserve volume (➠ 48)
	 is displayed in green.	Hill Start Control active (➠ 49)

Indicator and warning lights	Display text	Meaning
	 blinks yellow.	Hill Start Control is automatically deactivated (➠ 49)
	 is displayed.	Hill Start Control cannot be activated (➠ 49)
	 Gear indicator flashes.	Gear not trained (➠ 49)
 flashes in green.		Hazard warning lights system switched on (➠ 50)
 flashes in green.		
	 is displayed in white.	Service due (➠ 50)
	Service due!	
 lights up yellow.	 is displayed in yellow.	Service date missed (➠ 50)
	Service overdue!	

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


If the outside temperature falls below the following limit value, there is a risk of black ice formation.

 Limit range for outside temperature
Approx. 37 °F (Approx. 3 °C)

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

Outside temperature warning

is displayed.

Possible cause:

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

⚠ WARNING

Risk of black ice, even above 37 °F (3 °C)
Accident hazard
- At a low outside temperature, icy conditions must expected on bridges and in shady road areas.
- Think well ahead when driving.

Key remote outside of the reception area
–with Keyless Ride OE


lights up yellow.


`Remote key not in range. It is not possible to turn on the ignition again.`

Possible cause:
The communication between the key remote and the engine electronics is faulty.
- Check the battery in the key remote.

–with Keyless Ride OE
- Replacing the battery of the radio-operated key (➠ 59).
- Use the spare key for further travel.

–with Keyless Ride OE
- If radio-operated key is lost (➠ 58).

- If the Check Control dialogue appears while riding, remain calm. You can continue riding, the engine will not turn off.
- Have any faulty key remotes replaced by a BMW Motorrad partner.

Keyless Ride failure

 lights up yellow.

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

Possible cause:

The Keyless Ride control unit has diagnosed a communication fault.

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

» Engine start using Keyless Ride is no longer possible.

» DWA can no longer be activated.

Replacing the battery of the key fob transmitter

 lights up yellow.

 Remote key battery at 50%. No functional limitation.

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

Possible cause:

- The battery for the key fob transmitter is no longer charged to full capacity. Operation of the key fob transmitter is only ensured for a limited time.

–with Keyless Ride OE

- Replacing the battery of the radio-operated key (➠ 59).

Vehicle voltage too low

 is displayed in yellow.

 Vehicle voltage low. Switch off unneeded consumers.

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

Possible cause:

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

- Switch off consumers that are not needed or disconnect them from the electrical system.

- If the malfunction persists or occurs without any consumers connected, have the malfunction corrected as soon as possible at a specialist workshop, preferably an authorized BMW Motorrad retailer.

Vehicle voltage critical

 lights up yellow.

 is displayed in yellow.

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

WARNING

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

The vehicle voltage is critical. If you continue riding, the vehicle electronics will discharge the battery.
Possible cause:
Consumers with high electrical consumption, e.g. heating vests, are in operation; too many consumers are in operation at the same time, or the battery is defective.

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

Charging voltage critical

 flashes yellow.

 is displayed in yellow.

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

WARNING

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

The battery is not being charged. If you continue riding, the vehicle electronics will discharge the battery.
Possible cause:
Alternator or alternator drive faulty, battery faulty or fuse for alternator regulator blown.

- Have the malfunction corrected as soon as possible at an authorized specialist work-

shop, preferably an authorized BMW Motorrad retailer.

Light source defect


lights up yellow.


The faulty light source is displayed:


`High beam faulty!`


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


`Low beam faulty!`


`Front parking lamp faulty!`

–with LED additional headlight[OA]


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


`Tail light faulty!`


`Brake light faulty!`


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


`License plate light faulty!`

–`Have checked by a specialist workshop.`

WARNING

Overlooking the vehicle in traffic due to a defective light source on the vehicle

Safety risk

- Replace defective bulbs as soon as possible; it is best always to carry a complete set of spare bulbs on the motorcycle.

Possible cause:

One or more light sources are faulty.

- Identify faulty lights by visually inspecting them.
- Replacing low and high-beam light sources in headlight (➠ 182).
- Replacing LED parking lights (➠ 182).
- Replacing front and rear turn indicator light sources (➠ 181).
- Replacing LED tail light (➠ 182).

Light control unit failed


lights up yellow.


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

WARNING

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

Safety risk

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

Possible cause:

The light control unit has diagnosed a communication error.

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

Anti-theft alarm battery low charge

–with anti-theft alarm system (DWA) OE


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


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

Possible cause:

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

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

Anti-theft alarm battery discharged

–with anti-theft alarm system (DWA) OE


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


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

Possible cause:

The anti-theft alarm system battery is completely discharged. Operation of the anti-theft alarm system is no longer ensured when the motorcycle's battery is disconnected.

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

DWA failure


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

Possible cause:
The DWA control unit has diagnosed a communication fault.

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

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

Electronic oil-level check


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

The following conditions must be satisfied in order to use the electronic oil-level check; multiple measurements may be necessary:

– The rider is sitting on the motorcycle and the motorcycle has been ridden at a speed of at least 6 mph (10 km/h) beforehand.
– Engine idling for at least 20 seconds.
– Engine is at operating temperature.
– Motorcycle stands vertically on a level surface.
– Side stand is retracted and motorcycle is not resting on a center stand.
– The spring strut is set according to the load status, or D-ESA is in the Auto loading mode.

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

Electronic oil-level check: check engine oil level


Engine oil level Check engine oil level.

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

- Checking the engine oil level (➠ 162).

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

- Topping up the engine oil (➠ 164).

If the oil level is correct:

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

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

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

Coolant temperature too high

 lights up red.

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

ATTENTION

Riding with overheated engine

Engine damage

- Be sure to observe the measures listed below.

Possible cause:

Coolant level is too low.

- Checking the coolant level (➠ 169).

If coolant level is too low:

- Let the engine cool down.
- Topping up coolant (➠ 169).
- Have the coolant system checked at a specialist workshop, preferably by an authorized BMW Motorrad retailer.

Possible cause:

The coolant temperature is too high.

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

If the coolant temperature is frequently too high:

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

Drive malfunction

 `Engine! Have checked by a specialist workshop.`

Possible cause:

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

- Have fault eliminated at a specialist service facility, preferably an authorized BMW Motorrad retailer.

» You may continue to drive if the pollutant emission is above the setpoint values.

Engine control failure

 lights up yellow.

 lights up.

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

Engine in emergency-operation mode

 lights up yellow.

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

WARNING

Unusual handling when the engine is in emergency operation

Accident hazard

- Avoid rapid acceleration and passing maneuvers.

Possible cause:
The engine control unit has diagnosed a fault which impairs the engine performance or throttle response. The engine is running in the emergency-operation mode. In exceptional cases, the engine stops and can no longer be started.

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

» 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 the engine control

 flashes red.

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

WARNING

Damage to engine during emergency operation

Accident hazard

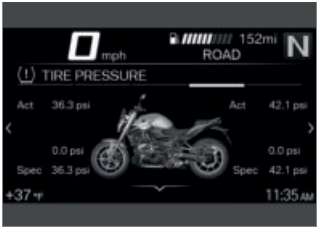
- Drive slowly and avoid rapid acceleration and passing maneuvers.
- If possible, have the vehicle picked up and the fault eliminated at a specialist workshop, preferably an authorized BMW Motorrad retailer.

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

Tire pressure

–with tire pressure monitor (TPM) OE

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



The values on the left refer to the front wheel, and the values on the right refer to the rear wheel.
The pressure differential is indicated by the current and set-point tire pressure.
Immediately after turning on the ignition, only dashes are displayed. The transfer of the tire pressure values does not begin until the following minimum speed is exceeded for the first time:

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

 The tire pressures are shown in the TFT display with temperature compensation and are always based on the following tire air temperature:
68 °F (20 °C)

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

 If the value concerned is borderline in terms of the permissible tolerance, the general warning light also lights up yellow.

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

For more information about the BMW Motorrad tire pressure control, see the "Technology in detail" chapter starting on page (➠ 152).

Tire pressure at the limits of the permissible tolerance

–with tire pressure monitor (TPM) OE

 lights up yellow.

 is displayed in yellow.

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

Possible cause:

The measured tire pressure is within the limit range of the permissible tolerance.

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

» Temperature compensation (➠ 152)

» Tire pressure adjustment (➠ 153)

» The target tire pressures can be found in the following locations:

–On the back cover of the rider's manual

–Display in the `TIRE PRESSURE` view

–Sign on the fixed fork tube

Tire pressure is outside the approved tolerance range
–with tire pressure monitor (TPM) OE

 flashes red.

 is displayed in red.

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

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

WARNING

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

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

Can the tire still be driven on:
- Correct the tire pressure at the next opportunity.
- Before adjusting the tire pressure, check the information on temperature compensation and tire pressure adjustment in the "Technology in detail" chapter:
  » Temperature compensation (➠ 152)
  » Tire pressure adjustment (➠ 153)
  » The target tire pressures can be found in the following locations:
  –On the back cover of the rider's manual
  –Display in the `TIRE PRESSURE` view
  –Sign on the fixed fork tube
- Have the tires checked by a specialist workshop for damage, preferably an authorized BMW Motorrad retailer.

In the event of uncertainty about the driveability of the tire:
- Do not continue riding.
- Inform roadside assistance.

Transmission fault
–with tire pressure monitor (TPM) OE

 `"---"`

Possible cause:
The vehicle has not reached the minimum speed (➠ 152).

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

- Observe the TPM display at higher speed.

 This is a permanent fault only when the general warning light also lights up.
In this case:
- Have fault eliminated at a specialist service facility, preferably an authorized BMW Motorrad retailer.

Possible cause:
The radio link to the TPM sensors is disrupted. There are radio systems in the surrounding area that are causing interference to the connection between the TPM control unit and the sensors.
- Observe the TPM display in different surroundings.

 This is a permanent fault only when the general warning light also lights up.
In this case:
- Have fault eliminated at a specialist service facility, preferably an authorized BMW Motorrad retailer.

Sensor faulty or system fault
–with tire pressure monitor (TPM) OE

 lights up yellow.

 "___"

Possible cause:
Wheels without installed TPC/ RDC sensors are mounted.
- Retrofit wheel set with TPM sensors.

Possible cause:
1 or 2 TPM sensors have failed or there is a system fault.
- Have fault eliminated at a specialist service facility, preferably an authorized BMW Motorrad retailer.

Tire pressure control (TPC) failed
–with tire pressure monitor (TPM) OE

 lights up yellow.

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

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

» Tire pressure warnings not available.

Battery of the tire pressure sensor weak

–with tire pressure monitor (TPM) OE

 lights up yellow.

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

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

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

Fall sensor defective

 Fall sensor faulty. Have checked by a specialist workshop.

Possible cause:
The fall sensor is not functioning.
- Contact an authorized service facility, preferably an authorized BMW Motorrad retailer.

Side stand monitoring faulty

 lights up yellow.

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

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

ABS self-diagnosis not completed

 flashes.

Possible cause:

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

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

ABS fault

 lights up yellow.

 lights up.

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

Possible cause:

The ABS control unit has detected an error. The partial integral brake and the Dynamic Brake Control function have failed. The ABS function is limited.

- It remains possible to continue riding. Observe additional information on special situations which can lead to ABS fault messages (➠ 144).
- Have the malfunction corrected as soon as possible at an authorized specialist workshop, preferably an authorized BMW Motorrad retailer.

ABS failure

 lights up yellow.

 lights up.

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

Possible cause:

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

- It remains possible to continue riding. Observe additional information on special conditions that can lead to an ABS error message (➠ 144).
- Have the malfunction corrected as soon as possible at an authorized specialist workshop, preferably an authorized BMW Motorrad retailer.

ABS Pro failure
–with riding modes Pro[OE]


lights up.


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

Possible cause:
The monitoring of the ABS Pro function has detected a fault. The ABS Pro function is not available. The ABS function remains available. ABS only supports braking in straight-ahead riding.

- You may continue riding. Observe additional information on special situations that can lead to an ABS Pro fault memory entry (➠ 144).
- Have the malfunction corrected as soon as possible at a specialist workshop, preferably an authorized BMW Motorrad retailer.

ASC/DTC intervention

flashes rapidly.

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

ASC/DTC self-diagnosis not completed

flashes slowly.

Possible cause:

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

- Ride off slowly. The ASC/DTC indicator and warning light must go out after a few meters.

If the ASC/DTC indicator and warning light continues flashing:

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

ASC/DTC switched off

 lights up.

 Off!

 Traction control deactivated.

Possible cause:
The ASC/DTC system was deactivated by the rider.

- Turning on the ASC/DTC function (➠ 64).

Limited ASC/DTC availability

 lights up.

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

Possible cause:
The ASC/DTC control unit has detected a fault.

ATTENTION

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

- Do not carry along any objects under the rider's or passenger's seat.
- Secure vehicle tools.
- Do not damage the rotational speed sensor.
- It must be noted that only limited ASC/DTC function is available.
- You may continue riding. Observe additional information on situations that can lead to a ASC/DTC fault (➠ 146).
- Have the malfunction corrected as soon as possible at a specialist workshop, preferably an authorized BMW Motorrad retailer.

ASC/DTC error

 lights up.

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

Possible cause:
The ASC/DTC control unit has detected a fault.

ATTENTION

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

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

- Do not damage the rotational speed sensor.
- It must be noted that the ASC/DTC function is not available at all or is restricted.
- It remains possible to continue riding. Observe additional information on situations that can lead to a ASC/DTC fault (➠ 146).
- Have the malfunction corrected as soon as possible at an authorized specialist workshop, preferably an authorized BMW Motorrad retailer.

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. Damping action and/or the spring adjustment may be the cause. In the Auto loading mode, the cause may be a fault in the function of the riding position compensation. In this state, the motorcycle is probably heavily damped and is uncomfortable to drive, particularly on poor roadways. Alternatively, the spring setting may be set incorrectly.

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

» Dynamic ESA adjustment options (➠ 65)

Fuel down to reserve volume

`Low fuel. Ride to the next filling station.`

WARNING

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

Accident hazard, damage to catalytic converter

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

Possible cause:

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

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

- Refueling procedure (➠ 132).

Hill Start Control active

 is displayed in green.

Possible cause:
The Hill Start Control (➠ 155) was activated by the rider.
- Switch Hill Start Control on and off (➠ 73).

Hill Start Control is automatically deactivated

 blinks yellow.

Possible cause:
Hill Start Control was deactivated automatically.
- Side stand was folded out.

» Hill Start Control is deactivated when the side stand is folded out.
- Engine was stopped.

» Hill Start Control is deactivated when the engine is stopped.
- Operating the Hill Start Control (➠ 73).

Hill Start Control cannot be activated

 is displayed.

Possible cause:
The Hill Start Control can not be activated.
- Fold in side stand.

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

» Hill Start Control only functions with the engine running.

Gear not trained

–with Gearshift Assistant Pro[OE]

 Gear indicator flashes.

Possible cause:
–with Gearshift Assistant Pro[OE]
The transmission sensor has not been completely trained.
- Engage idle position N and allow the engine to run for at least 10 seconds while parked to train the idle position.
- Shift all gears with clutch control and drive for at least 10 seconds in each engaged gear.

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

–If the transmission sensor is completely trained, the gearshift assistant Pro functions as described (➠ 153).
- If the training procedure is unsuccessful, have the fault corrected at a specialist workshop, preferably an authorized BMW Motorrad retailer.

Hazard warning lights system switched on

 flashes in green.

 flashes in green.

Possible cause:
The hazard warning lights system was switched on by the rider.
- Operating the hazard warning lights (➠ 62).

Service display

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

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

 If the service display appears more than a month before the service date, the current day's date must be reset in the instrument cluster. This situation can occur if the battery was disconnected.

Service due

 is displayed in white.

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

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

Service date missed

 lights up yellow.

 is displayed in yellow.

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

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

OPERATION

04

IGNITION SWITCH/STEERING LOCK

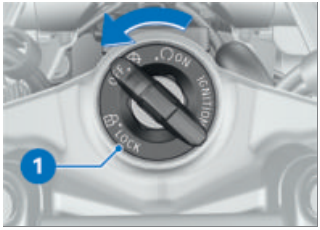
Ignition keys

You are provided with 2 ignition keys.
Should you lose your keys, refer to the notes regarding the electronic immobilizer (EWS) (➠ 55).
A single ignition key fits the ignition switch/steering lock, the fuel filler cap and the seat lock.

The cases and the topcase can also be ordered with locks for the same keys on request. Please contact a specialist workshop for this purpose, preferably a BMW Motorrad retailer.

Locking the steering lock

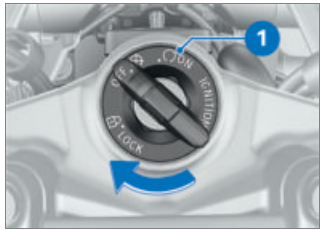
- Turn handlebars to left.



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

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

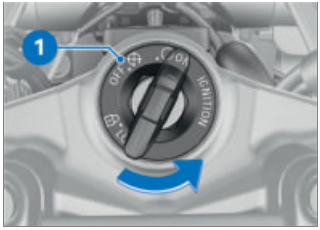
Turning on the ignition



- Insert the ignition key into the ignition switch/steering lock and turn it to position **1**.

» Parking lights and all function circuits are turned on.
–with LED additional headlight OA
» Auxiliary LED headlights are turned on.◁
» Pre-Ride-Check is carried out. (➠ 124)
» ABS self-diagnosis is performed. (➠ 124)
» ASC/DTC self-diagnosis is performed. (➠ 126)

Turning off the ignition



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

» After the ignition has been turned off, the instrument cluster remains turned on for a little while and indicates any existing fault memory entries.
» Steering lock is not locked.
» Electrically powered accessories remain operational for a limited period of time.
» Battery can be recharged using the onboard power socket.
» The ignition key can be removed.

–with LED additional headlight OA

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

EWS electronic immobilizer

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

An additional ignition key attached to the same ring as the ignition key used to start the engine could "irritate" the electronics, in which case the enabling signal for the engine start is not issued.
Always keep the ignition keys separate from each other.

If you lose an ignition key, you can have it disabled by your authorized BMW Motorrad retailer.
For this purpose, you should also bring all of the motorcycle's remaining ignition keys with you. The engine can no longer be started using a disabled ignition key; however, a disabled ignition key can be enabled again.
Ignition keys can only be obtained from an authorized BMW Motorrad retailer. The keys are part of an integrated

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

IGNITION WITH KEY-LESS RIDE

–with Keyless Ride[OE]

Ignition keys

The indicator light for the radio-operated key flashes as long as the radio-operated key is being searched for.
If the radio-operated key or the spare key is detected, it goes out.
If the radio-operated key or the spare key is not detected, it lights up briefly.

You are provided with one radio-operated key and one spare key. Should you lose your keys, refer to the notes regarding the electronic immobilizer (EWS) (➠ 55).
The ignition, fuel filler cap and anti-theft alarm system are activated with the radio-operated key. The seat lock, topcase and case can be operated manually.

When the range of the radio-operated key is exceeded (e.g. in case or Topcase), the vehicle cannot be started.
If the radio-operated key continues to be missing, the ignition is switched off after approx. 1.5 minutes to protect the battery charge.
It is advisable to carry the radio-operated key directly on your person (e.g. in a jacket pocket) and to also carry the spare key as an alternative.

Range of Keyless Ride radio-operated key
Approx. 3.3 ft (Approx. 1 m)

Locking the steering lock

Requirement

Handlebars are turned to the left. The radio-operated key is within the reception area.

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

Turning on the ignition
Requirement
The radio-operated key is within the reception area.

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

Steering lock is locked:
- Press and hold button **1**.
» Steering lock is unlocked.
» Parking lights and all function circuits are turned on.
–with LED additional headlight OA
» Auxiliary LED headlights are turned on.◁
» Pre-Ride-Check is carried out. (➠ 124)
» ABS self-diagnosis is performed. (➠ 124)
» ASC/DTC self-diagnosis is performed. (➠ 126)

Steering lock is unlocked:
- Briefly press button **1**.
» Parking lights and all function circuits are turned on.
–with LED additional headlight OA
» Auxiliary LED headlights are turned on.◁
» Pre-Ride-Check is carried out. (➠ 124)
» ABS self-diagnosis is performed. (➠ 124)
» ASC/DTC self-diagnosis is performed. (➠ 126)

Turning off the ignition
Requirement
The radio-operated key is within the reception area.

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

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

Switch off the ignition and do not lock the steering lock:
- Briefly press button **1**.

» Light is switched off.
» Steering lock is not locked.
- Locking the steering lock (➠ 56).

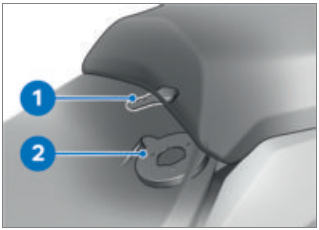
EWS Electronic immobilizer
The motorcycle's electronics monitor the data stored in the radio-operated key through a ring antenna in the radio-operated lock. The engine control unit does not enable an engine start until the radio-operated key has been recognized as "authorized" for your motorcycle.

An additional 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 the engine start is not issued.
Always keep the radio-operated keys separate from each other.

If you lose a radio-operated key, you can have it disabled by your authorized BMW Motorrad retailer. For this purpose, you should also bring all of the motorcycle's remaining ignition keys with you.
The engine can no longer be started using a disabled radio-operated key; however, a disabled radio-operated key can be enabled again.
Ignition keys can only be obtained from an authorized BMW Motorrad retailer. As the radio-operated keys are part of an integrated safety system, the retailer is under an obligation to check your legitimacy.

If radio-operated key is lost

Should you lose your keys, refer to the information regarding the electronic immobilizer (EWS).
Should you lose the radio-operated key during a trip, the vehicle can be started using the spare key.



- Insert the spare key **1** in the slot between the rider's seat and passenger seat so that

spare key is positioned over antenna **2**.

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

» Pre-Ride-Check is carried out.
– Spare key has been detected.
– Engine can be started.
– Spare key can be removed.
• Starting the engine (➠ 123).

Replacing the battery of the radio-operated key

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

• The battery for the radio-operated key is not charged to full capacity.

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

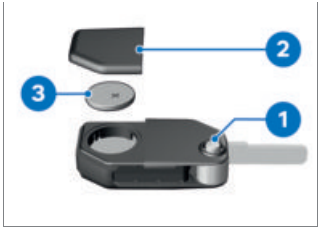
DANGER

Swallowing a battery

Risk of injury or death

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

• Replace battery.



• Press button **1**.
» Key bit folds open.
• Press battery cover **2** upward.
• Remove battery **3**.
• Dispose of the old battery in accordance with legal reg-

ulations. Do not dispose of the battery in the household waste.

ATTENTION

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

- Insert the new battery with the positive terminal facing up.

Battery type
For Keyless Ride radio-operated key
CR 2032

- Install battery cover **2**.

» Red LED in instrument cluster blinks.

» The radio-operated key is working again.

EMERGENCY-OFF SWITCH

1 Emergency-off switch

WARNING

Operation of the emergency ON/OFF switch when riding
Danger of falling due to blocking of rear wheel
- Do not operate the emergency ON/OFF switch when riding.

The engine can be turned off easily and quickly using the emergency-off switch.

A Engine turned off
B Operating position

LIGHTS

Low-beam headlight and parking lights

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

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

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

High beams and headlight flasher

- Turning on the ignition (➠ 54).

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

Headlight courtesy delay feature

- Turn off the ignition.

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

» The vehicle lights light up for one minute and then turn off automatically.

– This can be used, for example, to illuminate the path to your

front door after the vehicle is parked.

Parking lights

- Turning off the ignition (➠ 55).

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

Auxiliary headlights

–with LED additional headlight OA

Requirement

The low beams must be turned on.

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

- Starting the engine (➠ 123).

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

The indicator light for the additional headlights lights up.

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

HAZARD WARNING LIGHTS

Operating the hazard warning lights

- Turning on the ignition (➠ 54).

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 turned off.

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

TURN SIGNALS

Operating turn signals

- Turning on the ignition (➠ 54).

- Press button **1** to the left to turn on the left-side turn signals.
- Press button **1** to the right to turn on the right-side turn signals.
- Push the button **1** into the center position to switch off the turn signal.

Comfort turn signals

If button **1** has been pushed to the right or left, the turn signals will automatically turn off under the following conditions:

– Speed is under 18 mph (30 km/h): after a distance covered of 165 ft (50 m).
– Speed is between 18 mph and 60 mph (30 km/h and 100 km/h): after a speed-dependent distance is covered or during acceleration.
– Speed is above 60 mph (100 km/h): after turn signals blink five times.

When button **1** is pushed to the right or left and held slightly longer, the turn signals will only turn off automatically

after the speed-dependent distance is covered.

TRACTION CONTROL (ASC/DTC)

Turning off the ASC/DTC function

- Turning on the ignition (➠ 54).

The ASC/DTC function can also be deactivated while you are riding.

- Press and hold button **1** until the ASC/DTC indicator and warning light changes its display behavior.

Immediately after pressing button **1**, the ASC/DTC system status `ON` is displayed.

lights up.

Possible ASC/DTC system status `OFF!` is displayed.

- Release button **1** after switchover of the ASC/DTC system status.

The new ASC/DTC system status `OFF!` is displayed briefly.

continues to light up.

» The ASC/DTC function is switched off.

Turning on the ASC/DTC function

- Press and hold button **1** until the ASC/DTC indicator and warning light changes its display behavior.

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

goes out, and if self-diagnosis has not been completed, it begins to flash.

The new ASC/DTC system status `ON` is displayed briefly.

- Release button **1** after changeover of the status.

remains off or continues to flash.

Possible ASC/DTC system status ON is displayed.

» The ASC/DTC function is switched on.

–without riding modes Pro[OE]

- Alternatively, turn the ignition off and on again.◁

- More information about traction control (ASC/DTC) can be found in the "Technology in detail" chapter:

» How does traction control work? (➠ 145)

ELECTRONIC CHASSIS AND SUSPENSION ADJUSTMENT (D-ESA)

Dynamic ESA adjustment options

–with Dynamic ESA[OE]

The Dynamic ESA electronic chassis setting can automatically adapt your motorcycle to the load. If the spring setting is set to Auto, the rider does not have to worry about adjusting the load.
More information about Dynamic ESA can be found in the "Technology in detail" chapter (➠ 148).

Available damping modes

–For road use: Road and Dynamic

Available load settings

–Fixed minimum spring setting: Min

–Active riding position compensation with automatic spring setting: Auto

–Fixed maximum spring setting: Max

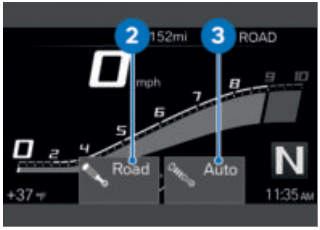
BMW Motorrad recommends the Auto chassis and suspension adjustment.

Displaying chassis and suspension adjustment

–with Dynamic ESA[OE]

- Turning on the ignition (➠ 54).

- Press button **1** briefly to display the current setting.



Immediately after the button **1** is pressed, the chassis and suspension adjustments options for damping **2** and spring setting **3** are displayed.

» The display automatically disappears again after a short time.

Adjusting damping

–with Dynamic ESA OE

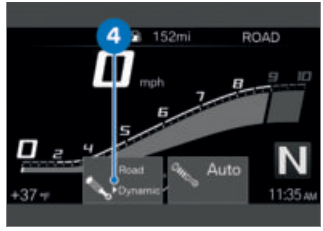
- Turning on the ignition (➠ 54).

- Press button **1** briefly to display the current setting.

To adjust the damping rate:

- Briefly press button **1** repeatedly until the desired setting is displayed.

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



The selection arrow **4** is displayed.

» The selection arrow **4** goes away after the changeover of the status.

The following settings are available:

–`Road`: damping for comfortable road travel

–`Dynamic`: damping for dynamic road travel

Adjusting spring preload

To adjust the spring preload:
- Starting the engine (➠ 123).
- Repeatedly press and hold button **1** until the desired setting is displayed.

The spring setting cannot be changed while the motorcycle is underway.

The following message is displayed if no setting is possible:
`Load adjust. only avail. when halted.`

The selection arrow **4** is displayed.

» The selection arrow **4** goes away after the changeover of the status.

The following settings are available:
- `Min`: Minimum spring setting (only suitable for one-up mode)
- `Auto`: Automatic spring setting (recommended chassis and suspension adjustment)
- `Max`: Maximum spring setting (only suitable for two-up mode)

» If the button **1** is not pressed for an extended period, the damping action and the spring preload will be adjusted to the displayed settings.

The new chassis and suspension adjustment options for damping **2** and spring setting **3** are displayed for a short period of time.

- At very low temperatures, relieve the motorcycle of its

load before increasing the spring preload; if applicable, have the passenger dismount.
» After the setting is completed, the chassis and suspension adjustments disappear.
» In the Auto loading mode, the spring preload is only adjusted after riding off.

RIDING MODE

Use of the riding modes

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

Series

–RAIN: Riding on rain-slicked roads.
–ROAD: Riding on dry roads.

–with riding modes Pro OE

With pro riding modes

–DYNAMIC: Dynamic riding on dry roads.
–DYNAMIC PRO: Dynamic riding on dry roads, taking account of the settings by the driver.

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

–with Dynamic ESA OE

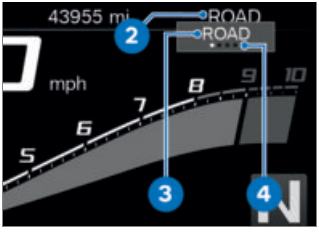
The chassis and suspension adjustments can also be adapted in the selected scenario.

More detailed information about the riding modes can be found in the "Technology in detail" chapter (➠ 149).

Select riding mode

• Turning on the ignition (➠ 54).

• Press button **1**.



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

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

From the following riding modes you can select:

–`RAIN`: for riding on rain-slicked roads.

–`ROAD`: for riding on dry roads.

–with riding modes Pro[OE]

The following riding mode can also be selected:

–`DYNAMIC`: for dynamic riding on dry roads.

–`DYNAMIC PRO`: for dynamic riding on dry roads, taking account of the settings made by the rider.◁

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

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

–The throttle grip is in Neutral.

–Brake is not engaged.

–Cruise control is not active.

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

PRO RIDING MODE

–with riding modes Pro[OE]

Adjustment options

The PRO riding mode can be individually adjusted.

Setting up the PRO riding mode

- Turning on the ignition (➠ 54).
- Call up menu `Settings`, `Vehicle settings`.

» The following PRO riding mode can be adjusted:

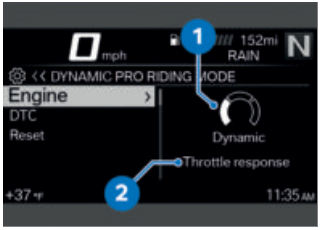
–`DYNAMIC PRO riding mode`

- Select and confirm the riding mode.

Setting Dynamic Pro

–with riding modes Pro[OE]

- Setting up the PRO riding mode (➠ 69).



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

- Select and confirm the system.

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

- Adjust the system.

» The Engine and DTC systems can also be set in the same way. More detailed information about the riding modes can be found in the chapter "Technology in detail":

» Selection (➠ 149)

- The settings can be reset to factory settings:
- Resetting the riding mode settings (➠ 70).

Resetting the riding mode settings

- Setting up the PRO riding mode (➠ 69).
- Select Reset and confirm.

» The following factory settings apply for DYNAMIC PRO RIDING MODE:

–DTC: Dynamic
–ENGINE: Dynamic

CRUISE CONTROL

–with cruise control[OE]

Display while adjusting (Speed Limit Info not active)

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

Display while adjusting (Speed Limit Info active)

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

Turning on the cruise control

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

» Button **2** is unlocked.

Saving the speed

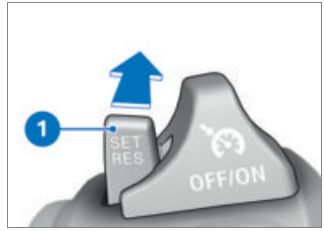
- Briefly push button **1** forward.

	Adjustment range of the cruise control
12...130 mph (20...210 km/h)	

The indicator light for cruise control is lit.

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

Accelerating



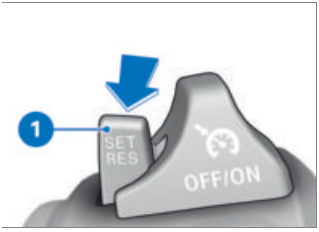
- Briefly push button **1** forward.

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

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

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

Decelerating



- Briefly press button **1** backward.

» The speed is decreased by 1 mph (1.6 km/h) each time the button is pressed.

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

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

Deactivating the cruise control

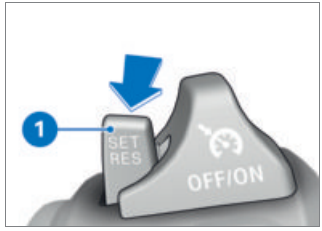
- Actuate the brakes, coupling or throttle grip (ease the throttle beyond the default setting) to deactivate the cruise control.

When downshifting using the Pro Gear Shift Assistant, the cruise control is automatically deactivated for safety reasons.

During ASC/DTC interventions, the cruise control is automatically deactivated for safety reasons.

» The indicator light for cruise control goes out.

Resuming previous cruising speed

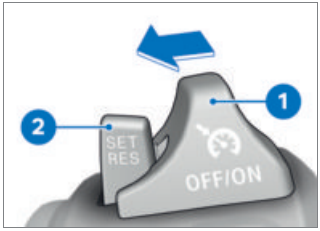


- Briefly push button **1** back to return to the speed saved beforehand.

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

The indicator light for cruise control is lit.

Turning off cruise control



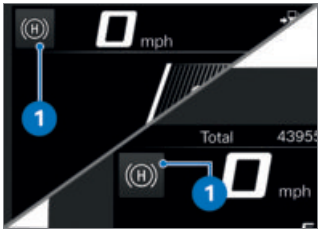
- Push switch **1** to the left.

» The system is switched off.

» Button **2** is locked.

HILL START CONTROL (HILL START CONTROL)

Display



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

Switch Hill Start Control on and off

- Turning on the ignition (➠ 54).
- Call up menu `Settings`, `Vehicle settings`.
- Turn `Hill Start Control` on or off.

Operating the Hill Start Control

Requirement

Vehicle is at a standstill with the engine running.Hill Start Control is switched on.

ATTENTION

Failure of the drive-off assistant

Risk of accident

- Secure the vehicle through manual braking.

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

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


is displayed in green.

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


is hidden.

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

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


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

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

» Hill Start Control function (➠ 155)

Adjusting Hill Start Control Pro

–with riding modes Pro[OE]

- Turning on the ignition (➠ 54).
- Go to the `Settings`, `Vehicle settings` menu.
- Select `HSC Pro`.
- To turn off Hill Start Control Pro, select `Off`.

» Hill Start Control Pro is deactivated.
- To turn on manual Hill Start Control Pro, select `Manual`.

» Hill Start Control Pro can be activated by firmly applying the handbrake or footbrake lever.
- To turn on automatic Hill Start Control Pro, select `Auto`.

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

» When applying the brake for approximately one second after the vehicle has come to a standstill and on a slope with at least a 3% gradient, Hill Start Control Pro is activated automatically.

» The selected setting is retained even after the ignition is turned off.

Operating the Hill Start Control Pro
–with riding modes Pro OE

Requirement
Vehicle is at a standstill with the engine running.

ATTENTION

Failure of the drive-off assistant
Risk of accident
- Secure the vehicle through manual braking.

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

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

- Apply handbrake lever **1** or footbrake lever firmly and then release again.
- Alternatively, apply the brake for about one second after the vehicle has come to a standstill, with a gradient of at least 3%.

is displayed in green.

» Hill Start Control Pro is activated.

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

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

is hidden.

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

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

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

» Hill Start Control Pro is deactivated.
• More information about Hill Start Control Pro can be found in the "Technology in detail" chapter:
» Hill Start Control function (➠ 155)

SHIFTPOINT LIGHT

–with riding modes Pro OE

Turning the shiftpoint light on and off

• Call up `Settings`, `Vehicle settings` menu.
• Switch `Shift light` on or off.

Setting shifting flash

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

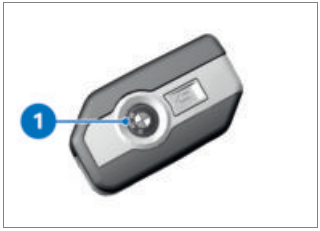
ANTI-THEFT ALARM SYSTEM (DWA)

–with anti-theft alarm system (DWA) OE

Activation

• Turning on the ignition (➠ 54).
• Adjust DWA (➠ 79).
• Turn off the ignition.
» If DWA is activated, DWA is automatically activated after the ignition is switched off.
» Activation takes approximately 30 seconds to complete.
» Turn signals flash twice.
» Confirmation tone sounds twice (if programmed).
» The anti-theft alarm system is active.

–with Keyless Ride OE



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

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

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

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

Alarm signal

The DWA alarm signal can be triggered by:
–Motion sensor
–Switch-on attempt with an unauthorized ignition key.
–Disconnection of the DWA from the vehicle battery (DWA battery takes over the power supply – alarm tone only, turn signals do not flash)

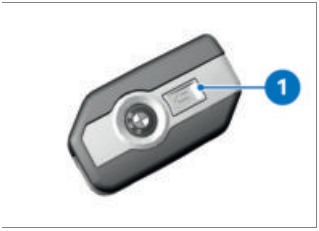
–with Keyless Ride OE

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

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

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

–with Keyless Ride OE



You can cancel a triggered alarm signal at any time by pressing the button **1** of the radio-operated key without deactivating the DWA.

If an alarm signal has been triggered while the motorcycle was unattended, the rider is notified accordingly by an alarm signal sounding once when the ignition is turned on. Then the DWA LED indicates the reason for the alarm signal for one minute.

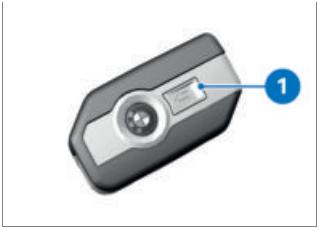
Light signals on indicator light:

–1 blink: motion sensor 1
–2 blinks: motion sensor 2
–3 blinks: ignition turned on with unauthorized ignition key
–4 blinks: anti-theft alarm system disconnected from vehicle battery
–5 blinks: motion sensor 3

Deactivating the DWA

- Turn on the ignition.

–with Keyless Ride OE



- Briefly press button **1**.

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

Adjustment options

`Warning signal`: Set rising and falling or intermittent alarm tone.

`Tilt sensor`: Activate the tilt alarm sensor to monitor the tilt of the vehicle. The anti-theft alarm system responds if, for

example, if the wheel is stolen or the motorcycle is towed.

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

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

Adjust DWA

- Turning on the ignition (➠ 54).
- Call up menu `Settings`, `Vehicle settings`, `Alarm system`.

» The following adjustments are available:

–Adjust `Warning signal`
–Turn `Tilt sensor` on and off
–Turn `Arming tone` on and off
–Turn `Arm automatically` on and off

TIRE PRESSURE CONTROL (TPC)

–with riding modes Pro OE
–with tire pressure monitor (TPM) OE

Switching setpoint pressure warning on or off

- If the minimum tire pressure is reached, a target pressure warning can be displayed.
- Call up `Settings`, `Vehicle settings`, `RDC` menu.
- Switch `Target pressure warn.` on or off.

HEATED GRIPS

–with heated grips OE

Operating heated grips

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

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

- Starting the engine (➠ 123).

- Press the button **1** repeatedly until the desired heating level **2** is shown in front of the heated grip icon **3**.

The handlebar grips can be heated at two different levels.

1 Medium heater output

2 High heater output

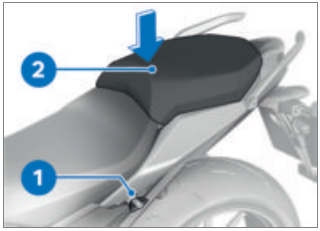
» The 2nd heating level is used for fast heat-up of the grips; then the switch should be switched back to the 1st level.
» If no further changes are made, the selected heating level is set.

- To turn off the heated grips, press the button **1** repeatedly until the heated grip icon **3** goes out.

RIDER SEAT AND PASSENGER SEAT

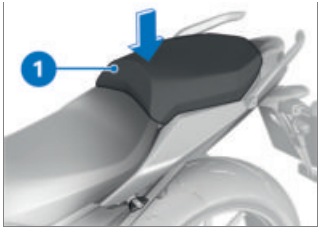
Removing the passenger seat

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



- Press the passenger seat **2** down in the front area to support unlocking while turning the seat lock **1** to the left with the ignition key and holding it.
- Lift the passenger seat **2** in front and release the ignition key.
- Take off the passenger seat **2** and set it on a clean surface with upholstered side facing down.

Installing the passenger seat



- First slide the passenger seat **1** into the mounts in the rear area.
- Press passenger seat **1** down firmly at front.

» Passenger seat audibly engages.

Remove rider's seat

- Removing the passenger seat (➠ 80).

Driver's seat is unlocked.

- Take off rider's seat at rear and place on a clean surface with upholstered side facing downward.

Installing the rider's seat

- Removing the passenger seat (➠ 80).

- Press the rider's seat into the front mounts **1** up to the stop and then lay on at rear.

TFT DISPLAY

05

GENERAL NOTES

Warnings

WARNING

Operation of a smartphone while the vehicle is in motion or when the engine is running
Risk of accident
- Observe the relevant road traffic regulations.
- Do not use while riding (except for applications without operation such as telephony via the hands-free system).

WARNING

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

Connectivity functions
Connectivity functions include media, telephony and navigation. Connectivity functions can be used if the TFT display is connected to a mobile end device and a helmet (➠ 94). You can find more information about the Connectivity functions at:
bmw-motorrad.com/connectivity

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

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

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

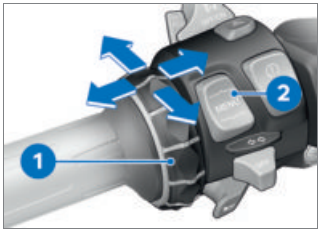
app starts the route guidance and adapts the navigation.

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

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

PRINCIPLE

Operating elements



All contents of the display are controlled by the Multi-Controller **1** and the rocker button MENU **2**.
The following functions are possible depending on the context.

Functions of the Multi-Controller

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

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

Tilt Multi-Controller to the left:
–Activate the function according to the operating feedback.
–Activate function to the left or back.
–After settings, return to menu view.
–In the menu view: move up one hierarchy level.
–In the My Vehicle menu: leaf to the next menu sheet.

Tilt Multi-Controller to the right:
–Activate the function according to the operating feedback.
–Confirm selection.
–Confirm settings.
–Browse to the next menu step.
–Scroll to right in lists.
–In the My Vehicle menu: leaf to the next menu sheet.

Rocker button MENU functions

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

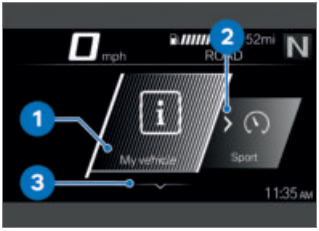
Briefly press the MENU up:
- In the menu view: move up one hierarchy level.
- In the Pure Ride view: Change the status line display.

MENU long press up:
- In the Menu view: Open Pure Ride view.
- In the Pure Ride view: change the operating focus to the navigator.

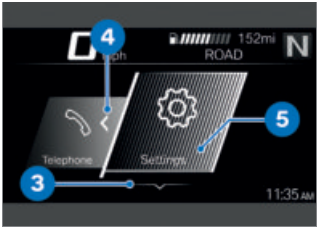
MENU short press down:
- Change a hierarchy level down.
- No function when lowest hierarchy level is reached.

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

Operating instructions in the main menu



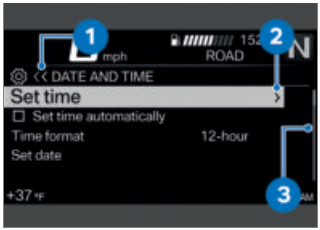
The operating instructions indicate whether and which interactions are possible.



Meaning of the operating instructions:
- Operating instructions **1**: The left end has been reached.
- Operating instructions **2**: You can scroll to the right.
- Operating instructions **3**: You can scroll down.
- Operating instructions **4**: You can scroll to the left.
- Operating instructions **5**: The right end has been reached.

Operating instructions in submenus

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



Meaning of the operating instructions:

–Operating instructions **1**: The current display is in a hierarchical menu. One icon indicates one submenu level. Two icons indicate two or more submenu levels. The color of the icon changes depending on whether there is an option to return to the top.

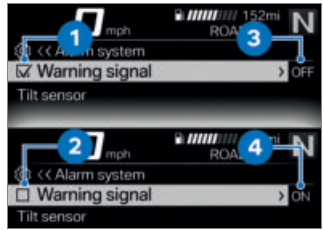
–Operating instructions **2**: You can go to another submenu level.

–Operating instructions **3**: There are more entries than can be displayed.

Show Pure Ride view

- Press and hold the top MENU rocker button.

Switching functions on and off



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

Examples for switching on and off:

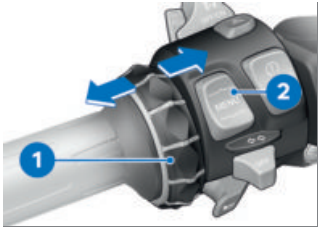
–Icon **1** indicates that the function is turned on.

–Icon **2** indicates that the function is turned off.

–Icon **3** indicates that the function can be turned off.

–Icon **4** indicates that the function can be turned on.

Going to a menu



- Show Pure Ride view (➠ 87).
- Briefly press button **2** downward.

The following menus can be called up:

–`My vehicle`
–`Navigation`
–`Media`
–`Telephone`
–`Settings`

–with riding modes Pro[OE]

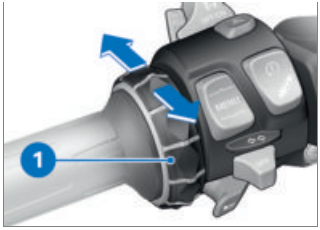
In addition:

–`Sport`◁

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

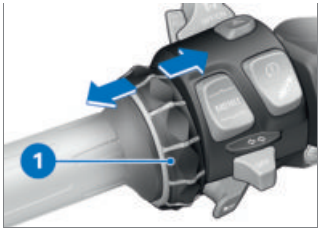
The `Settings` menu can only be called up when stationary.

Moving the cursor in lists



- Going to a menu (➠ 88).
- To move the cursor down in lists, turn the Multi-Controller **1** down until the desired entry is marked.
- To move the cursor up in lists, turn the Multi-Controller **1** up until the desired entry is marked.

Confirming the selection



- Select desired entry.
- Multi-Controller **1** short press to right.

Calling up the last menu used

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

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

Changing operating focus

–with preparation for navigation system OE

When the Navigator is connected, you can switch between the operation of the Navigator and the TFT display.

Changing the operating focus

–with preparation for navigation system OE

–with navigation system OA

- Fastening navigation system securely (➠ 204).
- Show Pure Ride view (➠ 87).
- Press and hold the top MENU rocker button.

» Operating focus changes to the Navigator or the TFT display. The active device is marked in the upper left status line. Operating actions affect the active device until the operating focus is changed again.

» Operating the navigation system (➠ 206)

System status displays

The system status is displayed in the lower menu area when a function has been turned on or switched off.

Examples of the meaning of the system statuses:

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

Changing the status line display

Requirement

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

- Turning on the ignition (➠ 54).

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

–with tire pressure monitor (TPM) OE
» In addition, information from the tire pressure control can be displayed.◁
• Selecting status line content (➠ 90).

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

The following values can be displayed:

Total distance

Current distance 1

Current distance 2

Consumption 1 (average)

Consumption 2 (average)

Riding time 1

Riding time 2

Break 1

Break 2

Speed 1 (average)

Speed 2 (average)

–with tire pressure monitor (TPM) OE

Tire pressure◁

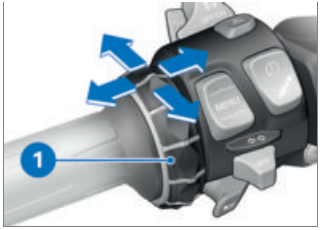
Range

Fuel tank level

Selecting status line content

• Go to the Settings, Display, Status line content menu.
• Turn on desired displays.
» It is possible to change between the selected displays in the status line. If no displays are selected, only the range is shown.

Making settings



- Select desired settings menu and confirm.
- Turn Multi-Controller **1** down until the desired setting is marked.
- If operating instructions are present, tilt Multi-Controller **1** to the right.
- If no operating instructions are present, tilt Multi-Controller **1** to the left.

» The setting is saved.

Switch Speed Limit Info on or off

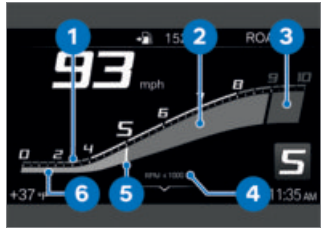
Requirement

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

- `Speed Limit Info` displays the currently permitted top speed.
- Go to `Settings`, `Display` menu.
- Switch `Speed Limit Info` on or off.

PURE RIDE VIEW

Tachometer



1 Scale
2 Low engine speed range
3 High / red engine speed range
4 Unit for tachometer: 1000 revolutions per minute
5 Needle
6 Trailing indicator

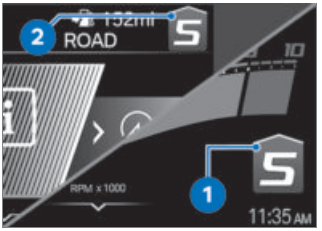
The red engine speed range changes depending on the coolant temperature: The colder the engine, the lower the speed at which the red engine speed range begins. The warmer the engine, the higher the speed at which the red engine speed range begins. When the operating temperature has been reached, the red engine speed range display will no longer change.

Range

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

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

Upshift recommendation



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

GENERAL SETTINGS

Adjusting the volume

- Connect the rider's helmet and the passenger helmet (➠ 96).
- Increase volume: turn Multi-Controller up.
- Reduce volume: turn Multi-Controller down.
- Mute: turn Multi-Controller all the way down.

Setting the date

- Turning on the ignition (➠ 54).
- Call up menu `Settings`, `System settings`, `Date and time`, `Set date`.
- Set `Day`, `Month`, and `Year`.
- Confirm setting.

Adjusting the date format

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

Setting the clock

- Turning on the ignition (➠ 54).
- Call up menu Settings, System settings, Date and time, Set time.
- Set Hour and Minute.

Setting the time format

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

Setting the units of measurement

- Call up menu Settings, System settings, Units.

The following units of measurement can be set:

–with tire pressure monitor (TPM) OE
–Pressure◁
–Temperature
–Consumption

Setting the language

- Call up menu Settings, System settings, Language.

The following languages can be set:

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

Adjusting brightness

- Call up menu Settings, Display, Brightness.
- Adjust brightness.

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

Resetting all settings

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

The settings of the following menus are reset:

–Vehicle settings
–System settings

–Connections
–Display
–Information

» Existing Bluetooth connections are not deleted.

BLUETOOTH

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

Possible sources of interference:
–Interference fields due to transmission towers and similar.
–Devices with Bluetooth radio standard that has been incorrectly implemented.
–By nearby Bluetooth-capable devices.

Pairing
Before two Bluetooth devices can establish a connection with each other, they must have identified 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. with operating system iOS, the BMW Motorrad Connected App must be called up before using.

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

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

Please consult the operating instructions for your communication system.

Pairing

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

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

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

The connection status for mobile end devices is displayed.

Connecting a mobile end device

- Pairing (➠ 95).
- Activate the Bluetooth function of the mobile end device (see operating instructions for the mobile end device).
- Select `Mobile device` and confirm.
- Select `Pair new mobile device` and confirm.

Mobile end devices are searched for.

 blinks in the lower status line during pairing.

Visible mobile end devices are displayed.

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

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

» If the connection cannot be established, the troubleshooting chart in the "Technical data" chapter may provide assistance. (➠ 220)

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

» Telephone data (➠ 105)

» If the phone book is not displayed, the troubleshooting chart in the "Technical data" chapter may provide assistance. (➠ 221)

» If the Bluetooth connection does not work as expected, the troubleshooting chart in

the "Technical data" chapter may provide assistance. (➠ 221)

Connect the rider's helmet and the passenger helmet

- Pairing (➠ 95).
- Select `Rider's helmet` or `Passenger helm.` and confirm.
- Show the communication system of the helmet.
- Select `Pair new rider's helmet` or `Pair new passeng. helmet` and confirm.

Helmets are searched for.


blinks in the lower status line during pairing.

Visible helmets are displayed.

- Select helmet and confirm.

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

» If the connection cannot be established, the troubleshooting chart in the "Technical data" chapter may provide assistance. (➠ 220)

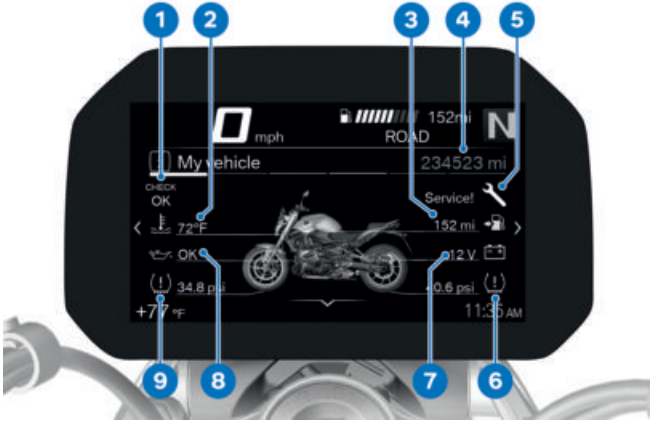
» If the Bluetooth connection does not work as expected, the troubleshooting chart in the "Technical data" chapter may provide assistance. (➠ 221)

Deleting connections

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

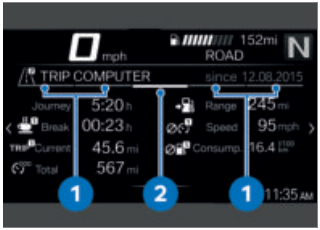
MY VEHICLE

Start screen



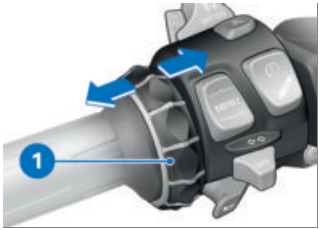
1 Check Control display Layout (➠ 25)
2 Coolant temperature (➠ 38)
3 Range (➠ 92)
4 Odometer
5 Service display (➠ 50)
6 Rear tire pressure (➠ 40)
7 Voltage of the vehicle electrical system (➠ 189)
8 Engine oil level (➠ 37)
9 Front tire pressure (➠ 40)

Operating instructions



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

Browsing through menu screens



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

The following screens are included in the My Vehicle menu:

–MY VEHICLE
–Check Control messages (if present)
–ONBOARD COMPUTER
–TRIP COMPUTER
–with tire pressure monitor (TPM) OE
–TIRE PRESSURE◁
–SERVICE REQUIREMENTS

- More information about tire pressure and Check Control messages can be found in the "Displays" chapter (➠ 25).

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

On-board computer and travel on-board computer

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

Call up on-board computer

- Call up menu My vehicle.
- Scroll to the right until the ONBOARD COMPUTER menu window is displayed.

Reset on-board computer

- Call up on-board computer (➠ 98).
- Press MENU rocker button down.

- Select Reset all values or Reset individual values and confirm.

The following values can be reset individually:
–Break
–Journey
–Current (TRIP 1)
–Speed
–Consump.

Call up travel on-board computer

- Call up on-board computer (➠ 98).
- Scroll to the right until the TRIP COMPUTER menu window is displayed.

Reset travel on-board computer

- Call up travel on-board computer (➠ 99).
- Press MENU rocker button down.
- Select Automatic reset or Reset all values and confirm.

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

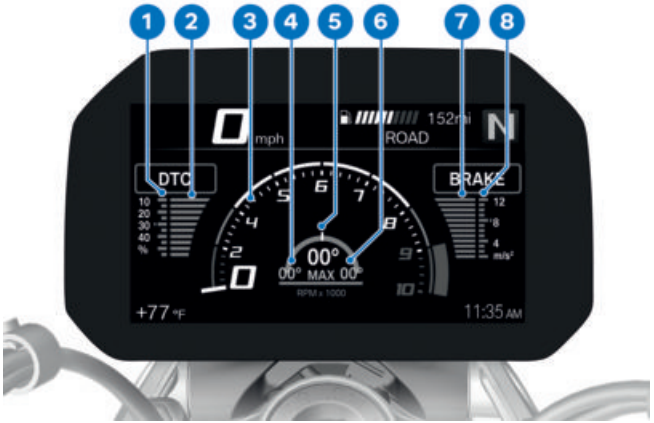
Service requirements

If the time remaining until the next service is less than a month, or if the next service is due within 700 mi (1127 km), a white Check Control message is displayed.

SPORT

–with riding modes Pro[OE]

Sport overview



1 Maximum DTC torque reduction
2 Current DTC torque reduction
3 Rotational-speed sensor
4 Maximum angle of inclination to left
5 Current angle of inclination during cornering for left and right
6 Maximum angle of inclination to right
7 Current deceleration during braking
8 Maximum deceleration

Resetting the maximum values

The maximum values for DTC torque reduction, angle of inclination and deceleration are automatically reset after the ignition is switched off.

NAVIGATION

Warnings

WARNING

Operation of a smartphone while the vehicle is in motion or when the engine is running
Risk of accident
- Observe the relevant road traffic regulations.
- Do not use while riding (except for applications without operation such as telephony via the hands-free system).

WARNING

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

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

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

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

Enter destination address
- Connecting a mobile end device (➠ 95).
- Call up the BMW Motorrad Connected app and start the route guidance.
- Call up menu `Navigation` in the TFT display.

» Active route guidance is displayed.

» If the active route guidance is not displayed, the troubleshooting chart in the "Technical data" chapter may provide assistance. (➠ 221)

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

Select destination from favorites

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

Entering special destinations

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

The following locations can be selected:

–At current location
–At destination
–Along the route

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

The following point of interest can be selected:

–Filling station

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

Specifying route criteria

- Call up menu Navigation, Route criteria.

The following criteria can be selected:

–Route type
–Avoid

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

The number of enabled avoidances is displayed in brackets.

Ending route guidance

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

Switching spoken instructions on or off

- Connect the rider's helmet and the passenger helmet (➠ 96).
- The navigation can be read out by a computer voice. To do this, the Spoken instructions must be turned on.
- Call up menu Navigation, Active route guidance.
- Turn Spoken instructions on or off.

Repeating the last spoken instruction

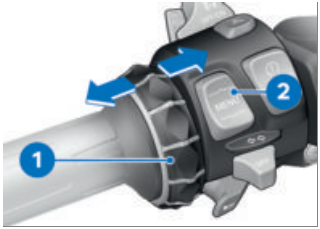
- Call up menu Navigation, Active route guidance.
- Select Current instruction and confirm.

MEDIA

Prerequisite

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

Controlling audio playback



- Go to the Media menu.

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

- Adjusting the volume (➠ 92).
- Next title: Tilt the Multi-Controller **1** briefly to the right.
- Last title or start of current title: Tilt the Multi-Controller **1** briefly to the left.
- Fast forward: Tilt and hold the Multi-Controller **1** to the right.
- Fast rewind: Tilt and hold the Multi-Controller **1** to the left.
- Go to context menu: Press button **2** down.

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

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

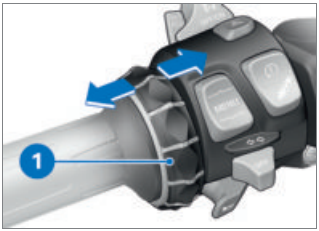
In the Audio settings submenu you can adjust the following settings:
– Turn Shuffle on or off.
– Repeat: Select Off, One (current track), or All.

PHONE

Prerequisite

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

Making a phone call



- Go to 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.

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

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

Telephone data
Depending on the mobile end device, telephone data is transferred to the vehicle automatically after pairing (➠ 94).
`Phone book`: List of contacts saved in the mobile end device
`Call list`: List of telephone calls with the mobile end device
`Favorites`: List of favorites saved in the mobile end device

DISPLAYING SOFTWARE VERSION

- Call up menu `Settings`, `Information`, `Software version`.

DISPLAYING LICENSE INFORMATION

- Call up menu `Settings`, `Information`, `Licenses`.

SETTING

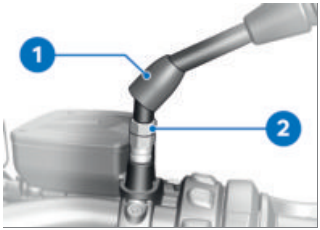
06

MIRRORS

Adjusting the mirrors

- Move mirrors into desired position by rotating.

Adjusting the mirror arm



- Slide the protective cap **1** up over the bolted connection on the mirror arm.
- Loosen nut **2**.
- Turn the mirror arm into the desired position.
- Tighten the nut to the specified torque while holding the mirror arm in place.

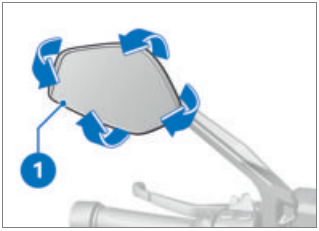
Mirror (locknut) on adapter
M10 x 1.25

Mirror (locknut) on adapter
16 lb/ft (22 Nm) (Left-hand thread)

- Slide protective cap **1** over screw connection.

Adjusting the 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]

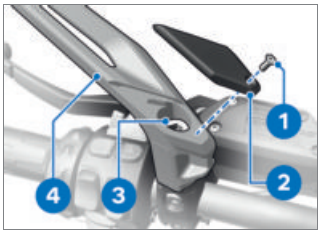


- Move mirror **1** into desired position by turning it.

Adjusting the 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]

To adjust the mirror arm, a small and a large angle screwdriver are included with the vehicle.



- Remove screw **1** and remove cover **2**.
- Loosen adjusting screw **3** and turn mirror arm **4** into the desired position.
- Tighten adjusting screw **3**, holding the mirror arm while doing so.
- Affix cover **2** and install screw **1**.

Mirror on handlebars
M10 x 30
18 lb/ft (25 Nm)

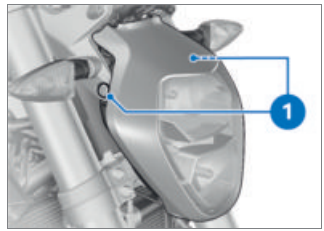
HEADLIGHTS

Headlight range and spring setting

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

If there are doubts as to the correct headlight range, have the adjustment checked by a specialized workshop, preferably by an authorized BMW Motorrad retailer.

Adjusting the headlight range



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

- Loosen screws **1** using the onboard toolkit.

Do not place motorcycle on center stand or side stand.

- Swing headlight downward somewhat (depending on payload) to lower headlight light.

If the motorcycle is ridden again with lower payload:

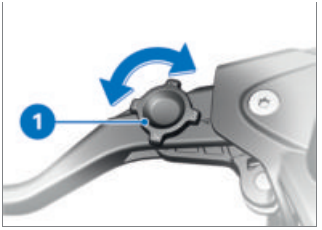
- Have the headlight base setting readjusted by a specialist workshop, preferably an authorized BMW Motorrad retailer.
- Tighten screws **1** using the onboard toolkit.

CLUTCH

Adjusting the clutch lever

WARNING

Adjusting the clutch lever while driving
Accident hazard
- Adjust the clutch lever when the motorcycle is stationary.

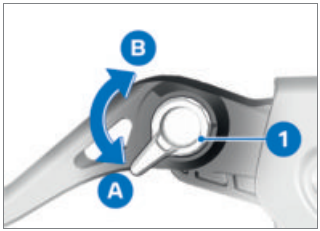


- Turn the adjustment wheel **1** into the desired position.

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

» Adjustment options:
– Position 1: smallest distance between handlebar grip and clutch lever
– Position 4: largest distance 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 the adjustment lever **1** to the desired position.

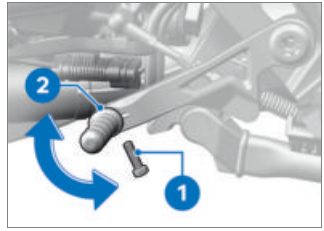
» Adjustment options:

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

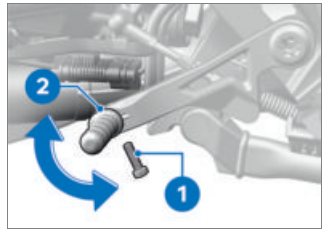
GEARSHIFT LEVER

–with Option 719 Billet pack Classic II OE
or
–with Option 719 Billet pack Storm II OE
or
–with Option 719 Billet pack Shadow II OE

Adjusting the gearshift lever foot plate



- You can adjust the horizontal and vertical distance of the foot relative to the foot plate **2** by turning the foot plate in different positions.
- Remove the screw **1**.



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

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

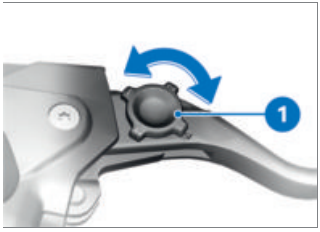
	Foot piece to gearshift lever
7 lb/ft (10 Nm)	

BRAKE

Adjusting the brake lever

WARNING

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

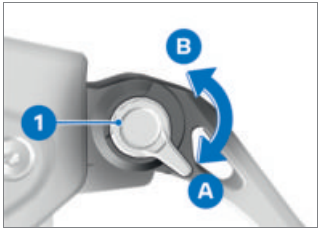


- Turn the adjustment wheel **1** into the desired position.

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

» Adjustment options:
–Position 1: smallest distance between handlebar grip and brake lever
–Position 2: greater distance between handlebar grip and brake lever
–Position 3: greater distance between handlebar grip and brake lever
–Position 4: greatest distance between handlebar grip and brake 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

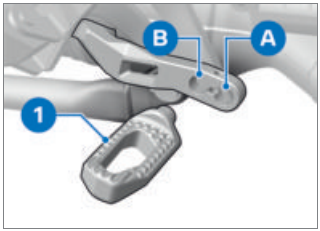


- Turn the adjustment lever **1** to the desired position.

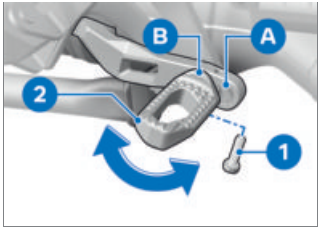
» Adjustment options:
–From position **A**: smallest distance between handlebar grip and brake lever.
–Five steps toward position **B** to increase the distance between the handlebar grip and the handbrake lever.◁

Adjusting the footbrake lever foot plate

–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]



- You can adjust the horizontal and vertical distance of the foot relative to the foot plate **1** by turning the lever 180° and installing it in position **A** or **B**.



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

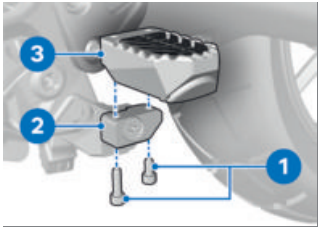
	Foot piece on footbrake lever
M6 x 20	
Thread-locking compound: micro-encapsulated	
7 lb/ft (10 Nm)	

FOOTRESTS

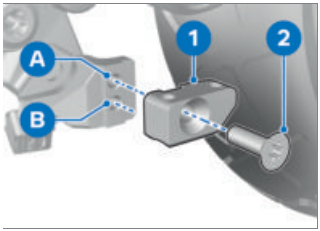
–with Option 719 Billet pack Classic II[OE]
or
–with Option 719 Billet pack Storm II[OE]
or
–with Option 719 Billet pack Shadow II[OE]

Adjusting the footrests

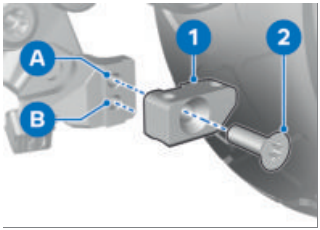
- The footrest is set the same way on the right and left.
- The position of the footrest must be set equally on the right and left.



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

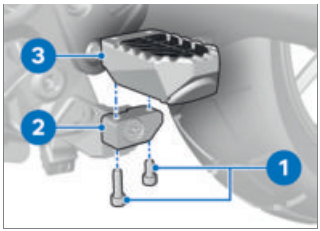


- Remove the screw **2**.
- Remove clamping block **1** from position **A** or **B**.



- Install clamping block **1** in the desired position **A** or **B** and tighten screw **2**.

Clamping block on footrest hinge
M8 x 25
15 lb/ft (20 Nm)



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

Footrest on clamping block
M6 x 20 / M6 x 12
7 lb/ft (10 Nm)

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

SPRING PRELOAD

Setting

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

Adjusting the spring preload at the rear wheel

–without Dynamic ESA OE

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

WARNING

Uncoordinated settings of spring preload and spring strut damping.

Poorer handling.

- Adjust damping characteristic to changed spring preload.

WARNING

Adjusting the spring preload while riding.

Accident hazard

- Adjust the spring preload only when the motorcycle is stationary.

- To decrease spring preload, turn the adjustment wheel **1** in the arrow direction LOW.
- To increase spring preload, turn the adjustment wheel **1** in the arrow direction HIGH.

Basic setting of spring preload, rear
Turn adjustment wheel as far as possible into LOW direction. (One-up without load)
Turn adjuster wheel as far as possible in LOW direction, then rotate 15 turns in HIGH direction. (One-up with load)
Turn adjuster wheel as far as possible in HIGH direction. (Two-up and load)

DAMPING

–without Dynamic ESA OE

Setting

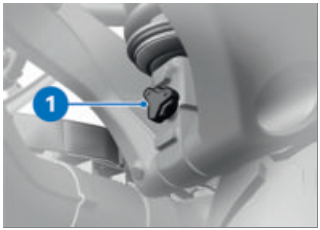
The damping must be adjusted to the road conditions and the spring preload.

–A rough road surface requires softer damping than a smooth road surface.

–An increase in spring preload requires firmer damping, a reduction in spring preload requires softer damping.

Adjusting damping at the rear wheel

- Park the motorcycle, making sure the ground is level and firm.
- Adjust damping from the left side of the vehicle.



- Turn the adjustment wheel **1** clockwise to increase damping.
- Turn the adjustment wheel **1** counterclockwise to decrease damping.

Basic setting of rear wheel damping
Turn adjuster wheel clockwise up to stop, then 6 clicks counterclockwise. (One-up without load)
Turn adjuster wheel clockwise up to stop, then 4 clicks counterclockwise. (One-up with load)
Turn adjuster wheel clockwise up to stop. (Two-up with load)

RIDING

07

SAFETY INSTRUCTIONS

Rider's Equipment

Do not ride without the correct clothing. Always wear:
–Helmet
–Rider's suit
–Gloves
–Boots

This applies even to short journeys, and to every season of the year. Your authorized BMW Motorrad retailer will be happy to advise you and has the correct clothing for every purpose.

Load

WARNING

Reduced riding stability caused by overloading and uneven loading
Accident hazard
- Do not exceed the gross weight limit and observe the loading information.

- Adjust spring setting and damping rate for the gross vehicle weight.
- Ensure that case volumes on left and right are equal.
- Make sure that weight is uniformly distributed between right and left.
- Pack heavy pieces of luggage and cargo as low and as close to the center of the motorcycle as possible.
- Observe the maximum payload and maximum speed as indicated on the label in the case (see also the chapter "Accessories").

–with topcase OA
- Observe the maximum payload and maximum speed as indicated on the label in the topcase (see also the chapter "Accessories").◁

–with tank bag, small OA
- Observe the maximum load capacity maximum speed of the tank rucksack.

Storage capacity of tank bag
max 11 lbs (max 5 kg)

Speed limit for riding with tank bag
max 112 mph (max 180 km/h)◁

Speed

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

–Incorrect settings of spring-strut and shock absorber system
–Unevenly distributed load
–Loose clothing
–Insufficient tire inflation pressure
–Tire tread in poor condition
–Etc.

Risk of poisoning
Exhaust gas contains carbon monoxide, which is colorless and odorless but highly toxic.

WARNING

Harmful exhaust gas
Danger of suffocation
- Do not inhale exhaust fumes.
- Do not run the engine in closed rooms.

WARNING

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

Burn hazard

CAUTION

Intense heating up of engine and exhaust system while riding
Burn hazard
- After parking the motorcycle, make sure that no persons or objects come into contact with the engine and exhaust system.

WARNING

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

Catalytic converter
If misfire causes unburned fuel to enter the catalytic converter, there is a danger of overheating and damage.
The following must be observed:
–Do not run the fuel tank dry.
–Do not run the engine with the spark-plug cap removed.
–Stop the engine immediately if it misfires.
–Use unleaded fuel only.

–Comply with all specified maintenance intervals.

ATTENTION

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

Danger of overheating

ATTENTION

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

Modifications

ATTENTION

Modifications to the motorcycle (e.g. engine control unit, throttle valves, clutch)
Damage to the affected parts, failure of safety-relevant functions, expiration of warranty
- Do not make any modifications.

REGULAR CHECK

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

Always before riding off
- Check operation of the brake system.
- Check operation of the lighting and signal system.
- Check clutch function (➠ 169).
- Checking tire tread depth (➠ 170).
- Checking tire pressure (➠ 170).

–without Dynamic ESA OE
- Adjusting the spring preload at the rear wheel (➠ 115).
- Adjusting damping at the rear wheel (➠ 116).◁

–with Dynamic ESA OE
- Adjusting spring preload (➠ 67).
- Adjusting damping (➠ 66).◁
- Check that case and luggage are firmly secured.

At every third refueling stop
- Checking the engine oil level (➠ 162).
- Checking the front brake pad thickness (➠ 165).
- Checking the rear brake pad thickness (➠ 166).
- Checking the front brake fluid level (➠ 167).
- Checking the rear brake fluid level (➠ 168).
- Checking the coolant level (➠ 169).

STARTING

Starting the engine

- Turn on the ignition.

» Pre-Ride-Check is carried out. (➠ 124)

» ABS self-diagnosis is performed. (➠ 124)

» ASC/DTC self-diagnosis is performed. (➠ 126)

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

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

- In the case of cold start or under cold temperatures: Pull back clutch lever.

–with M Lightweight battery OE

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

- Press the starter button **1**.

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

» Engine starts.

» If the engine fails to start, the troubleshooting table in the chapter "Technical Data" may provide assistance (➠ 220)

Recharge the battery before you attempt to start the engine again, or get a jump start:

- Charge connected battery (➠ 189).
- Jump-starting (➠ 187).

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

Pre-Ride-Check

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

Phase 1

The pointer of the speedometer moves up to the end stop. At the same time, all indicator and warning lights are activated consecutively. The general warning light lights up red.

Phase 2

The pointer of the speedometer moves into the starting position. At the same time, the previously activated indicator and warning lights are now turned off in reverse sequence. The general warning light switches from red to yellow.

If the pointer of the speedometer has not been moved, or if one of the indicator and warning lights has not been switched on:

WARNING

Defective warning lights

Lack of display of malfunctions

- Check the display of all indicator and warning lights.

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

ABS self-diagnosis

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

Phase 1

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

 flashes.

Phase 2

» Check wheel sensors while starting off.

 flashes.

ABS self-diagnosis completed

» The ABS indicator and warning light goes out.

- Check the display of all indicator and warning lights.

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

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

- It remains possible to continue riding. Please be aware that neither the ABS nor the integral function are available.
- Have the malfunction corrected as soon as possible at an authorized service facility, preferably an authorized BMW Motorrad Retailer.

ABS self-diagnosis

The self-diagnosis routine checks whether the BMW Motorcycle Integral ABS is ready for operation. The self-diagnosis routine runs automatically when you switch on the ignition. To check the wheel speed sensors, the motorcycle must be driven a few meters at a minimum speed of 3 mph (5 km/h).

Phase 1

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

 flashes.

Phase 2

» Check wheel sensors while starting off.

 flashes.

ABS self-diagnosis completed

» The ABS indicator and warning lamp goes out.

- Check the display of all indicator and warning lights.

An ABS error is indicated following completion of the ABS self-diagnosis routine.

- It remains possible to continue riding. Please be aware that neither the ABS nor the integral function are available.
- Have the malfunction corrected as soon as possible at an authorized specialist workshop, preferably an authorized BMW Motorrad retailer.

ASC/DTC self-diagnosis

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

Phase 1

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


ASC/DTC indicator and warning light flashes slowly.

Phase 2

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


ASC/DTC indicator and warning light flashes slowly.

ASC/DTC self-diagnosis completed

» The ASC/DTC indicator and warning light goes out.

- Check the display of all indicator and warning lights.

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

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

- It remains possible to continue riding. It must be noted that the ASC/DTC function is not available.
- Have the malfunction corrected as soon as possible at an authorized specialist workshop, preferably an authorized BMW Motorrad retailer.

BREAKING IN

Engine

- While running in the motorcycle, vary the throttle opening and engine-speed range frequently; avoid driving for long periods at a constant speed.
- Choose curvy, slightly hilly sections of road if possible.
- Observe the engine run-in speeds.

 Engine break-in speeds
<5000 min^{-1} (Mileage 0...621 miles (0...1000 km))
No full throttle (Mileage 0...621 miles (0...1000 km))

- Observe mileage, after which the running-in check should be performed.

 Mileage until running-in check
311...746 miles (500...1200 km)

Brake pads

New brake pads must be run in before they achieve their optimum friction force. This initial reduction in braking efficiency can be compensated for by exerting greater pressure on the brake levers.

WARNING

New brake pads
Extension of the braking distance, accident hazard
- Brake early.

Tires

New tires have a smooth surface. This must be roughened by riding in a restrained manner at various lean angles until the tires are run in. This running in procedure is essential if the tires are to achieve maximum grip.

WARNING

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

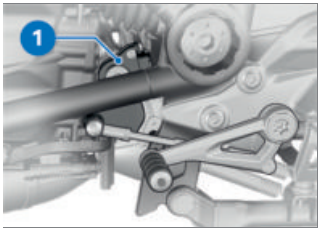
SHIFTING

Pro Gear Shift Assistant

–with Gearshift Assistant Pro OE

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

Due to safety reasons, the cruise control is automatically disabled when downshifting with the Gear Shift Assistant Pro.



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

» The sensor **1** on the gearshift shaft detects the intent to shift gears and triggers the shift assistance.

» If you are riding at a constant speed in a low gear at high RPMs and attempt to shift gears without clutch control, it can cause a strong load-change response. BMW Motorrad recommends clutch control for shifting gears in these riding situations.Use of the Pro Gear Shift Assistant should be avoided at engine speeds where the engine speed limiter becomes active.

» Shift assistance is not available in the following situations:

–With clutch actuated.

–Gearshift lever not in its initial position

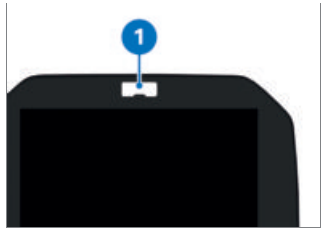
–When upshifting with the throttle valve closed (coasting overrun) or when decelerating.

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

- To be able to make another gear shift using the Pro Gear Shift Assistant, the gearshift lever must be fully released after the first gear change.

Shiftpoint light

–with riding modes Pro[OE]



The shiftpoint light **1** signals to the rider that the engine speed is approaching the RPM at which the rider needs to shift to the next highest gear.

– Shiftpoint light blinks at the preset frequency: The shifting speed will soon be reached
– Shiftpoint light goes out: shifting speed reached

The speed thresholds and the behavior of the shiftpoint light can be adjusted in the `Settings`, `Vehicle settings` menu; also see the (➠ 76) chapter.

BRAKES

How do you achieve the shortest stopping distances?

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

To achieve the shortest possible braking distance, the front brake must be applied quickly and with progressively greater levels of force. This procedure provides ideal exploitation of the extra weight transfer to the front wheel. The clutch should also be disengaged at the same time. The frequently-practiced procedure for "panic braking", in which maximum braking force is applied as rapidly as possible, produces deceleration rates that rise more quickly than the dynamic weight transfer occurs. As a result, a complete transfer of braking force to road surface is not possible.

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

Descending mountain passes

WARNING

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

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

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

Wet, soiled brakes

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

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

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

WARNING

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

ABS Pro
–with ABS Pro OE

Physical riding limits

WARNING

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

ABS Pro is available in all riding modes.

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

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

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

PARKING THE MOTORCYCLE

Side stand
- Switch off engine.

ATTENTION

Poor ground conditions in area of stand

Component damage cause by tipping over

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

ATTENTION

Loading of the side stand with additional weight

Component damage cause by tipping over

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

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

Center stand

–with center stand OE

- Switch off engine.

ATTENTION

Poor ground conditions in area of stand

Component damage cause by tipping over

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

ATTENTION

Folding in the center stand in case of strong movements

Component damage cause by tipping over

- Do not sit on the vehicle while it is resting on the center stand.

- Fold out center stand and jack up motorcycle.
- On slopes point the motorcycle uphill and engage 1st gear.

REFUELING

Fuel grade

Requirement

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

ATTENTION

Refueling with leaded fuel
Damage to catalytic converter
- Do not refuel with leaded gasoline or gasoline with metallic additives, e.g. manganese or iron.

ATTENTION

Use of Ethanol E85 as fuel
Damage to the engine and fuel supply
- Do not refuel with E85, i.e. fuel with an ethanol content of 85 %, or with Flex Fuel.

- Observe the maximum ethanol content of the fuel.

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

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

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

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

Refueling procedure

WARNING

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

WARNING

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

ATTENTION

Contact of fuel and plastic surfaces

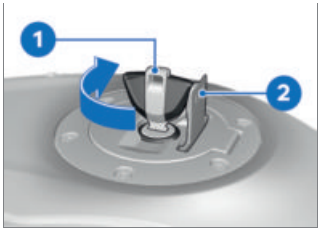
Damage to surfaces (become unattractive or cloudy)

- Immediately clean plastic surfaces after contact with fuel.

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

–with center stand OE

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



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

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

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

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

Usable fuel quantity
Approx. 4.8 gal (Approx. 18 l)

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

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

Refueling procedure
–with Keyless Ride[OE]

Requirement
Steering lock is unlocked.

WARNING

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

WARNING

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

ATTENTION

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

- Make sure ground is level and firm and place motorcycle on side stand.
- Turning off the ignition (➠ 55).

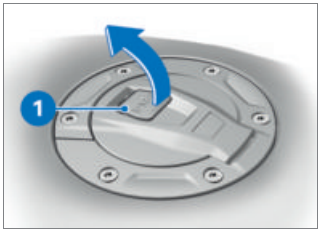
After the ignition is switched off, the fuel filler cap can be opened within the specified run-on time even without the radio-operated key being within the reception area.

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

» There are **2 ways** to open the fuel filler cap:
–Within the after-running period.
–After the after-running period expires.

Version 1
–with Keyless Ride OE

Requirement
Within the run-on time:



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

» Fuel filler cap unlocked.

- Open fuel filler cap completely.

Version 2
–with Keyless Ride OE

Requirement
After run-on time expires:

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

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

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

» Fuel filler cap unlocked.

- Open fuel filler cap completely.

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

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

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

Usable fuel quantity
Approx. 4.8 gal (Approx. 18 l)

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

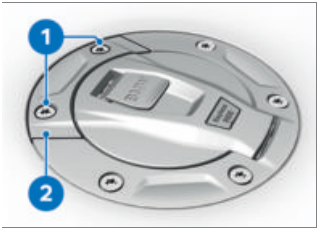
- Press fuel filler cap of fuel tank down firmly.

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

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

The fuel filler cap cannot be opened.

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



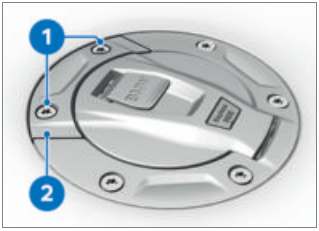
- Remove screws **1**.
- Remove emergency release **2**.

» Fuel filler cap unlocked.

- Open fuel filler cap completely.
- Refueling procedure (134).

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

Requirement
Fuel filler cap is closed.



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

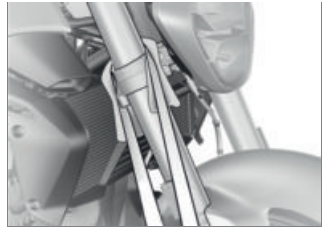
FASTENING MOTORCYCLE IN PLACE FOR TRANSPORTATION

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

ATTENTION

Motorcycle tips to the side when raising
Component damage cause by tipping over
- Secure the motorcycle against tipping to the side, preferably with the assistance of a second person.

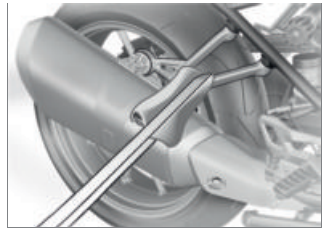
- Push the motorcycle onto the transport surface, and do not prop it on its side stand or center stand.



ATTENTION

Pinching of components
Component damage
- Do not pinch components, e.g. brake lines or wiring harnesses.

- Pass the luggage straps on the left and right through the fork bridge and strap the motorcycle down.



- Fasten and tighten the luggage straps at the rear on the brackets for the passenger footrests on both sides.

- Tension all luggage straps evenly so that the vehicle is securely fastened.

TECHNOLOGY IN DETAIL

08

GENERAL NOTES

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

ANTI-LOCK BRAKING SYSTEM (ABS)

Partially integral brake
Your motorcycle is equipped with a partially integral brake configuration. Both front and rear brakes are applied simultaneously when you pull the handbrake lever. The footbrake lever acts only on the rear brake.
BMW Motorrad Integral ABS adapts the brake force distribution between the front and rear brakes during braking by means of ABS modulation to suit the load carried by the motorcycle in order to achieve the shortest possible braking distance.

ATTENTION

Attempt at a burn-out despite integral function
Damage to rear-wheel brake and clutch
• Do not perform burn-out.

How does the ABS work?
The maximum braking force that can be transferred to the road surface is partially dependent on the friction coefficient of the road surface. Gravel, ice, snow and wet roads offer a considerably lower friction coefficient than a dry, clean asphalt surface. The poorer the friction coefficient of the road surface is, the longer the braking distance will be.
If the maximum transferable braking force is exceeded when the rider increases the brake pressure, the wheels begin to lock and driving stability is lost, and a fall can result. Before this situation occurs, ABS is activated and the brake pressure is adjusted to the maximum transferable braking force. This enables the wheels to continue to turn and maintains driving stability regardless of the road surface condition.

What happens when rough roads are encountered?
Bumpy or rough roads can briefly lead to a loss of contact between the tires and the road surface, until the transferable braking force is reduced to zero. If braking is carried out in

this situation, ABS must reduce the brake pressure to ensure driving stability when restoring contact to the road. At this point in time, the ABS must assume extremely low friction coefficients (gravel, ice, snow) so that the running wheels turn in every imaginable case and the driving stability is ensured. After detecting the actual conditions, the system adjusts the optimum brake pressure.

In what ways is the ABS noticeable to the rider?

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

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

Lifting off rear wheel

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

WARNING

Lifting off of the rear wheel due to heavy braking

Accident hazard

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

What are the design characteristics of the ABS?

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

Special situations
To detect the tendency of the wheels to lock up, the speeds of the front and rear wheel are compared. If the system registers implausible data for an extended period of time it will deactivate the ABS as safety precaution and a display will alert you to an ABS error. A self-diagnosis routine must be completed before the error will be displayed.
Apart from problems with the BMW Motorrad ABS, unusual riding conditions can also cause a fault message to be generated:
– Warm-up on the center or auxiliary stand at idle or with gear engaged.
– Rear wheel locked-up for a longer period of time by engine brake, e.g. when riding downhill on slippery surfaces.

Should a fault code occur due to an unusual driving condition, the ABS function can be reactivated by switching the ignition off and then on again.

How important is regular maintenance?

WARNING

Failure to have maintenance performed on the brake system regularly.
Accident hazard
- To ensure that the ABS is in a properly maintained condition, it is vital that the specified service intervals be observed.

Reserves for safety
But remember: the potentially shorter braking distances which ABS permits must not be used as an excuse for careless riding. ABS is primarily a means of ensuring a safety margin in genuine emergencies.

WARNING

Braking in curves
Risk of accident despite ABS
- The rider is always responsible for adapting his/her driving style.
- Do not reduce the additional safety function with careless riding or unnecessary risks.

Further development of ABS to ABS Pro
–with ABS Pro[OE]

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

ABS control
From a technical standpoint, ABS Pro adjusts the ABS control to the angle of inclination of the motorcycle in dependence on the respective riding situation. Signals for the roll and yaw rate and the lateral acceleration are used to determine the inclination of the motorcycle.
With an increasing inclination, the braking pressure gradient is increasingly limited at the start of braking. This results in a slower pressure buildup. In addition, the pressure modulation in the range of the ABS control is more uniform.

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

TRACTION CONTROL (ASC/ DTC)

How does traction control work?
Traction Control is available in two versions
–**Without** taking the angle into account: Automatic Stability Control ASC
–ASC is a rudimentary function intended to prevent falls.
–**With** taking the angle into account: Dynamic Traction Control DTC
–The additional inclined position and acceleration information enables the DTC to make more precise and comfortable adjustments.

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

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

WARNING

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

Special situations
As lean angles increase, acceleration capability is also progressively restricted by the laws of physics. This can result in reduced acceleration when coming out of very tight curves.

To detect spinning or slipping away of the rear wheel, among other things the RPMs of the front and rear wheel are compared, and the angle with DTC compared to ASC is taken into account.

–with riding modes Pro[OE]
If the values for the lean angle are detected to be implausible for a long period, a replacement value is used for the angle, or the DTC function is switched off. In these cases, a DTC error is displayed. A self-diagnosis must be completed before the fault memory entry will be displayed.
Under the following unusual riding conditions, BMW Motorrad Traction Control may be deactivated automatically.
Unusual riding conditions:
–Riding on the rear wheel (wheelie) for a longer period.

–Rear wheel spinning in place with front wheel brake engaged (burn out).
–Warming up the engine on an auxiliary stand in neutral or with gear engaged.

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

If the front wheel loses contact with the ground under extreme acceleration, the ASC or DTC function reduces the engine torque in the RAIN and ROAD riding modes until the front wheel makes contact with the ground again.
In the DTC settings DYNAMIC and DYNAMIC PRO, the front wheel lift-off detection permits brief wheelies.
In the RAIN, ROAD and DYNAMIC riding modes, the DTC settings corresponds to the riding mode.
In the DYNAMIC PRO riding mode, DTC can be set differently (➠ 69).
BMW Motorrad recommends that you respond to the front wheel lifting off by letting off on the throttle grip somewhat to return to a stable riding state as quickly as possible.
On a slippery surface, the throttle grip should never be suddenly throttled back completely unless the clutch is disengaged at the same time. The engine braking torque can cause the rear wheel to slip, resulting in an unstable riding state. This case cannot be controlled by BMW Motorrad DTC. Dynamic engine brake control prevents this unstable riding state.

DYNAMIC ENGINE BRAKE CONTROL (MSR)

–with riding modes Pro OE

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

Causes of excess slip at the rear wheel:
–Riding in coasting overrun on a road with low coefficient of friction (e.g. wet leaves).
–Hopping when shifting gears down.
–Hard brake onset in sporty riding style.

Like the DTC traction control, the dynamic engine brake control compares the wheel circumferential velocities of the front and rear wheel. With the aid of more information on the angle, the dynamic engine brake control can determine the slip or the stability reserve at the rear wheel.
If the slip exceeds the respective limit value, the engine torque is increased by slightly opening the throttle valves. The slip is reduced, and the vehicle is stabilized.

Effect of the dynamic engine brake control
–In the RAIN and ROAD riding modes: maximum stability.
–In the DYNAMIC and DYNAMIC PRO riding modes: high stability.
–In the ENDURO riding mode: minimum stability.
–In ENDURO PRO riding mode, dynamic engine brake control is disabled.

DYNAMIC ESA

–with Dynamic ESA OE

Riding position compensation
The Dynamic ESA electronic chassis setting can automatically adapt your motorcycle to the load. If the spring setting is set to Auto, the rider does not have to worry about adjusting the load.

BMW Motorrad recommends the Auto chassis and suspension adjustment.

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

that the system is operating correctly.

Adjustment options

Damping modes

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

Load settings

–Auto: Active riding position compensation with automatic setting of spring setting and damping (recommended chassis setting)
–Min: Minimum spring setting (only suitable for one-up mode)
–Max: Maximum spring setting (only suitable for two-up mode)

RIDING MODE

Selection

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

–RAIN
–ROAD (standard mode)
–with riding modes Pro OE
–DYNAMIC
–DYNAMIC PRO

For each of these riding modes, there is a coordinated setting for the ABS and ASC/DTC systems as well as for the throttle response.

–with Dynamic ESA OE
Coordination of the Dynamic ESA also depends on the selected riding mode.

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

Throttle response

–In RAIN riding mode: reserved
–In ROAD riding mode: direct
–In the DYNAMIC and DYNAMIC PRO riding modes: dynamic
–In the DYNAMIC PRO riding mode, the throttle response can be set differently via the SETUP (➠ 68).

ABS

–Rear wheel lift-off detection is active in all riding modes.
–In the RAIN, ROAD, DYNAMIC, and DYNAMIC PRO riding modes, the ABS is set for road use.

–with riding modes Pro[OE]
–In the RAIN, ROAD, DYNAMIC and DYNAMIC PRO riding modes, ABS Pro is available to its full capacity. The stand-up tendency the motorcycle has when braking while traveling around curves is reduced to a minimum.

ASC
–Front wheel lift-off detection is active in all riding modes.
–ASC is attuned for road use.
–In the ROAD riding mode, ASC provides high riding stability, and in the RAIN riding mode it provides maximum riding stability.

–with riding modes Pro[OE]
DTC
Tires
–In the DTC settings RAIN, ROAD and DYNAMIC, DTC is adjusted to road use with road tires.

Riding stability
–In the DTC setting RAIN, DTC intervenes early enough to ensure that maximum riding stability is achieved.
–In the DTC setting ROAD, the DTC intervenes later than in RAIN riding mode. Rear wheel spinning without traction is avoided wherever possible.
–In the DTC settings RAIN and ROAD, the front wheel is prevented from lifting off.
–In the DTC setting DYNAMIC, the DTC intervenes later than in the DTC setting ROAD, which enables minor drifts at the end of curves and brief wheelies.

In the RAIN, ROAD and DYNAMIC riding modes, the DTC setting corresponds to the riding mode.
In the DYNAMIC PRO riding mode, DTC can be set differently (➠ 69).

Switchover
Riding modes can be changed when the vehicle is at a standstill with the ignition switched on. A changeover while riding is possible under the following conditions:
–No drive torque at rear wheel.
–No brake pressure in the braking system.

For a changeover while riding, the following steps must be carried out:

–Turn back throttle grip.
–Do not actuate brake lever.
–Deactivate the cruise control.

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

DYNAMIC BRAKE CONTROL

–with riding modes Pro[OE]

Dynamic Brake Control function

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

Detection of emergency braking

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

Behavior during emergency braking

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

Behavior in the event of accidental activation of the throttle grip

–If the throttle grip is accidentally actuated during emergency braking (throttle position >5%), the intended braking effect is ensured by the Dynamic Brake Control ignoring the opening process of the throttle grip. This ensures the effectiveness of emergency braking.
–If the gas is shut off (throttle position <5%) during the intervention of the Dynamic Brake Control, the engine torque required by the ABS brake system will be restored.
–If the emergency braking is stopped and the throttle grip is still under actuation, the Dynamic Brake Control reduces the engine torque as required by the rider in a controlled manner.

TIRE PRESSURE CONTROL (RDC)

–with tire pressure monitor (TPM) OE

Operation

A sensor located in each tire monitors the air temperature and the inflation pressure inside the tire and transmits this information to the control unit. The sensors are equipped with a centrifugal governor, which does not enable the transmission of the measured readings until the defined minimum speed is exceeded for the first time.


Minimum speed for transmission of RDC measured data:

min 19 mph (min 30 km/h)

Before the tire pressure is received for the first time, "–– " is shown on the display for each tire. The sensors continue to transmit the measured readings for some time after the vehicle comes to a stop.


Duration of measured data transmission after motorcycle is stationary:

min 15 min

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

Tire inflation pressure ranges

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

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

Temperature compensation

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


The tire pressures are shown in the TFT display with temperature compensation and are always based on the following tire air temperature:

68 °F (20 °C)

Tire pressure gages at gas stations do not make any adjustment for the air temperature, the tire pressure indicated depends on the temperature of the air in the tire. As a result,

in most cases the values displayed there do not match the values shown in the TFT display.

Tire pressure adjustment
Compare the RDC value in the TFT display with the value on the back cover of the operating instructions. The difference between the two values must be compensated with the tire inflation pressure tester at the filling station.

 Example
According to the rider's manual, the tire pressure should have the following value:
36.3 psi (2.5 bar)
The following value is displayed in the TFT display:
33.4 psi (2.3 bar)
Missing is thus:
2.9 psi (0.2 bar)
The tester at the filling station shows:
34.8 psi (2.4 bar)
To produce the correct tire pressure, this must be increased to the following value:
37.7 psi (2.6 bar)

GEAR SHIFT ASSISTANT

–with Gearshift Assistant Pro OE

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

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

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

Downshifts

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

 Maximum engine speed
max 9000 min^{-1}

Upshifts

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

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

 Release thresholds
1st gear
min 1350 min^{-1}
2nd gear
min 1400 min^{-1}
3rd gear
min 1450 min^{-1}
4th gear
min 1500 min^{-1}
5th gear

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

HILL START CONTROL (HILL START CONTROL)

Hill Start Control function

The Hill Start Control Hill Start Control prevents an uncontrolled rolling back on slopes by means of targeted intervention in the partial integral ABS brake system, without the rider having to continuously operate the brake lever. When Hill Start Control is activated, pressure builds in the rear brake system so that the motorcycle remains stationary on a sloping surface. The brake pressure in the brake system depends on the gradient.

Influence of gradient on brake pressure and starting behavior

–Stopping on a slight incline builds up only a small amount of brake pressure. The brake is released quickly when driving off, making it possible to drive off more smoothly. Additional turning of the throttle grip is hardly necessary.

–Stopping on a steeper slope increases the amount of brake pressure built up. The brake is a bit slower to release when driving off. More torque is required to drive off, making additional turning of the throttle grip necessary.

Behavior when the vehicle is rolling or slipping

–The brake pressure increases when the vehicle is rolling with Hill Start Control active.

–If the rear wheel slips, the brake is released again after approx. 1 m. This prevents the vehicle from rolling with the rear wheel blocked.

Releasing the brake when switching off the engine or during timeout

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

In addition to the indicator and warning lights, the rider is to be made aware about the deactivation of the Hill Start Control by the following behavior:

Brake warning jerk

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

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

SHIFTCAM

Principle of ShiftCam function

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

MAINTENANCE

09

GENERAL NOTES

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

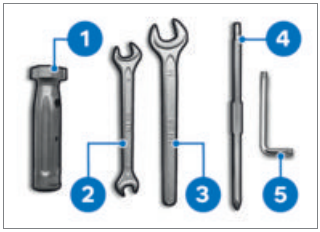
Microencapsulated screws
The microencapsulation is a chemical threadlocker. An adhesive is used to create a solid connection between screw and nut or component. Microencapsulated screws, therefore, are suitable for single use only.

After removal, the internal thread must be cleaned to remove adhesive. During installation, a new microencapsulated screw must be used. Therefore, before removal, ensure that you have suitable tools for cleaning the thread and have a replacement screw. If you carry out the work improperly, the locking function of the screw might no longer be guaranteed, which puts you in danger!

Additional information
If special tightening torques are to be taken into account for installation, these are listed. An overview of all required tightening torques is contained in the chapter "Technical data". Information on additional preventive maintenance and repair procedures is provided in the repair manual for your motorcycle on DVD, which you can obtain from your authorized BMW Motorrad retailer.

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

ONBOARD VEHICLE TOOL KIT



1 Screwdriver handle
–Use with screwdriver insert
–Topping up the engine oil (➠ 164).

2 Open-ended wrench
Key range: 8/10 mm
–Removing battery (➠ 190).

3 Open-ended wrench
Key range: 14 mm
–Adjusting the mirror arm (➠ 108).

4 Reversible screwdriver insert
Phillips PH1 and Torx T25
–Removing light sources from front and rear turn signals (➠ 181).
–Removing the battery cover (➠ 190).

5 Torx wrench T40

SERVICE TOOL SET

–with service tool set OA

For more extensive servicing (e.g. removing and installing wheels), BMW Motorrad has set up a service tool kit designed for your motorcycle. You can purchase this tool kit from your authorized BMW Motorrad retailer.

FRONT WHEEL STAND

Installing front wheel stand

ATTENTION

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

Component damage cause by tipping over

- Place the motorcycle on the center stand or an auxiliary stand before lifting it with the BMW Motorrad front wheel stand.

- Ensure that the motorcycle is standing securely.
- Put the motorcycle on an auxiliary stand; BMW Motorrad recommends the BMW Motorrad rear-wheel stand.
- Installing rear-wheel stand (➠ 162).

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

REAR-WHEEL STAND

Installing rear-wheel stand

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

ENGINE OIL

Checking the engine oil level

- Hold the motorcycle upright, making sure that the ground is firm and level.

–with center stand OE

- Put the motorcycle up on its center stand, making sure the ground is level and firm.◁

ATTENTION

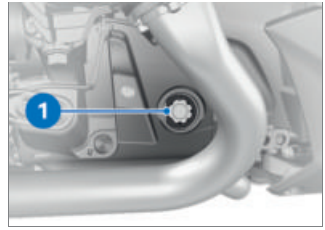
Misinterpretation of the oil filling quantity, as the oil level is temperature-dependent (the higher the temperature, the higher the oil level)

Engine damage

- Only check the oil level after a longer journey or when the engine is warm.

- Run the engine in neutral until the fan starts.
- Turn off engine at operating temperature.
- Wait five minutes to allow oil to drain into the oil pan.

BMW Motorrad recommends occasionally checking the motor oil after a journey of at least 31 mi in order to reduce the environmental impact.



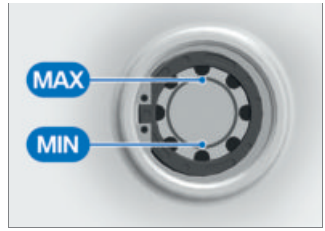
ATTENTION

Lateral tipping of the vehicle

Component damage cause by tipping over

- Secure the vehicle from tipping over laterally, preferably with the support of a second person.

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

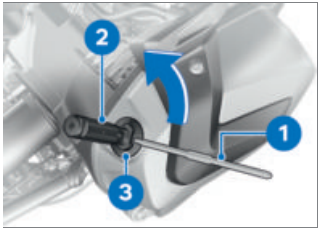


Specified level of engine oil
Between **MIN** and **MAX** mark

If the oil level is below the **MIN** mark:
- Topping up the engine oil (➠ 164).

If the oil level is above the **MAX** mark:
- Have the oil level corrected at a specialist workshop, preferably an authorized BMW Motorrad retailer.

Topping up the engine oil
- Park the motorcycle, making sure the ground is level and firm.



- Clean the area around the oil filler opening.
- To be able to apply force more easily, insert the interchangeable screwdriver insert **1** Torx-end first, into the screwdriver handle **2** (from on-board tool kit).
- Position the specified tool from the on-board tool kit on the cap **3** of the oil filler opening and turn counterclockwise to remove it.
- Checking the engine oil level (➠ 162).

ATTENTION

Use of too little or too much engine oil
Engine damage
- Always make sure that the oil level is correct.

- Top up the engine oil to the specified level.

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

- Checking the engine oil level (➠ 162).
- Install the cap **3** of the oil filler opening.

BRAKE SYSTEM

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

If no clear pressure points are perceptible:

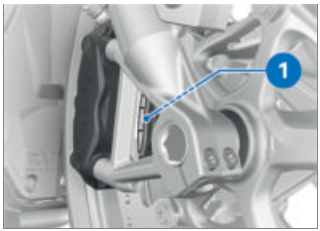
ATTENTION

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

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

Checking the front brake pad thickness

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



- Visually inspect the brake pad thickness on the left and right. Viewing direction: between wheel and front suspension toward brake pads **1**.

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

If the wear marks are no longer clearly visible:

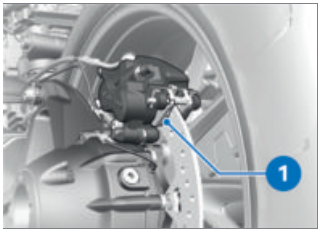
WARNING

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

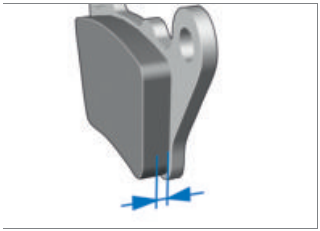
- Have brake pads renewed at a specialist workshop, preferably an authorized BMW Motorrad retailer.

Checking the rear brake pad thickness

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



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



Rear brake-pad wear limit
0.04 in (1.0 mm) (Only friction material without carrier plate)

If wear limit is reached:

WARNING

Dropping below the minimum pad thickness

Reduced braking action, damage to the brake

- In order to ensure the operating reliability of the brake system, make sure that the brake pads are not worn beyond their minimum thickness.

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

Checking the front brake fluid level

WARNING

Insufficient or contaminated brake fluid in the brake fluid reservoir

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

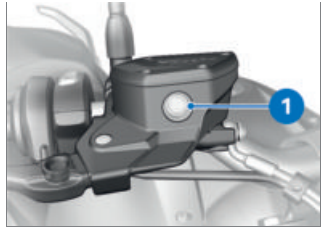
- Stop riding immediately until fault is rectified.
- Check brake fluid level regularly.
- Make sure that the lid of the brake fluid reservoir is cleaned before opening.
- Make sure that brake fluid is used from a sealed container only.

–with center stand OE

- Put the motorcycle up on its center stand, making sure the ground is level and firm.◁

–without center stand OE

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



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

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

Front brake fluid level
Brake fluid, DOT4
The brake fluid level must not fall below the **MIN** mark. (Brake fluid reservoir horizontal, vehicle standing upright)

If the brake fluid level falls below the approved level:
- Have the defect rectified as quickly as possible by a specialist workshop, preferably an authorized BMW Motorrad retailer.

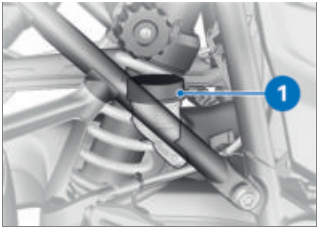
Checking the rear brake fluid level

WARNING

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

–with center stand OE
- Put the motorcycle up on its center stand, making sure the ground is level and firm.◁

–without center stand OE
- Hold the motorcycle upright, making sure that the ground is firm and level.◁



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

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

Rear brake fluid level
Brake fluid, DOT4
The brake fluid level must not fall below the **MIN** mark. (Brake fluid reservoir horizontal, vehicle standing upright)

If the brake fluid level falls below the approved level:
- Have the defect rectified as quickly as possible by a specialist workshop, preferably an authorized BMW Motorrad retailer.

CLUTCH

Check clutch function

- Pull back the clutch lever.

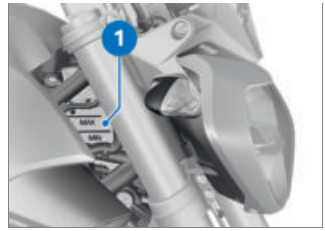
» Pressure point must be clearly perceptible.

If no clear pressure point can be felt:
- Have the clutch checked by an authorized workshop, preferably an authorized BMW Motorrad retailer.

COOLANT

Checking the coolant level

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

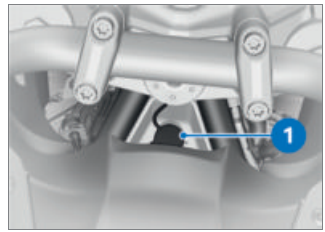


- Check coolant level at expansion tank **1**.

» Coolant level must be between the **MIN** and **MAX** marks.

If the coolant level drops below the **MIN** mark:
- Top up coolant.

Topping up coolant



- Open the cap **1** of the coolant expansion tank and top up coolant to the specified level.
- Checking the coolant level (➠ 169).
- Close the cap **1** of the coolant expansion tank.

TIRES

Checking tire pressure

WARNING

Incorrect tire inflation pressure
Poorer handling characteristic of motorcycle, reduction of tire service life
- Ensure proper tire inflation pressure.

WARNING

Automatic opening of vertically installed valve inserts at high speeds
Sudden loss of tire inflation pressure
- Use valve caps with rubber sealing ring and screw on firmly.

- Park motorcycle, ensuring that support surface is firm and level.
- Check tire pressures against data below.

Front tire pressure
36.3 psi (2.5 bar) (with cold tires, one-up and two-up mode)

Rear tire pressure
42.1 psi (2.9 bar) (with cold tires, one-up and two-up mode)

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

RIMS AND TIRES

Check wheel rims

- Park motorcycle, ensuring that support surface is firm and level.
- Subject wheel rims to visual inspection for defects.
- Have damaged rims checked and, if necessary, replaced by a specialist service facility, preferably an authorized BMW Motorrad retailer.

Checking tire tread depth

WARNING

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

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

- Check tire tread depth in main tread grooves with wear indicators.

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

When the minimum tread depth is reached:

- Replace the worn tires.

WHEELS

Affect of wheel sizes on suspension control systems

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

The sensor rings required for wheel speed detection must also match the installed control systems and may not be replaced.

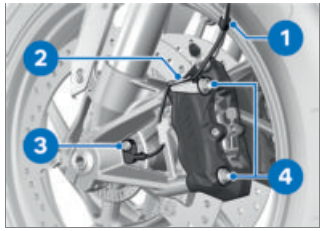
If you want to equip your motorcycle with different wheels, please contact a specialist service facility, preferably a BMW Motorrad retailer. In some cases the data stored in the control units can be adapted for the new wheel sizes.

Removing front wheel

- Put the motorcycle on an auxiliary stand; BMW Motorrad recommends the BMW Motorrad rear-wheel stand.
- Installing rear-wheel stand (➠ 162).

–with center stand[OE]

- Put the motorcycle up on its center stand, making sure the ground is level and firm.◁



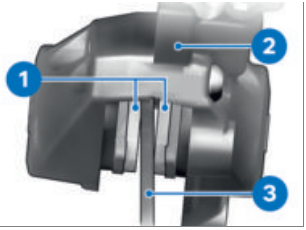
- Detach the wheel speed sensor cable from the holding clips **1** and **2**.

- Remove the screw **3** and remove the wheel speed sensor from the bore.
- Mask off areas of the wheel rim that could get scratched in the process of removing the brake calipers.

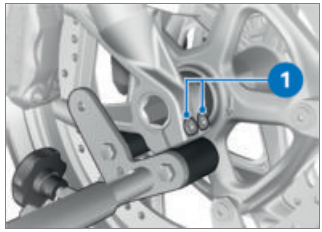
ATTENTION

Unintentional pressing together of brake pads
Component damage when mounting the brake caliper or when pressing the brake pads apart
- Do not actuate the brakes with the brake caliper removed.

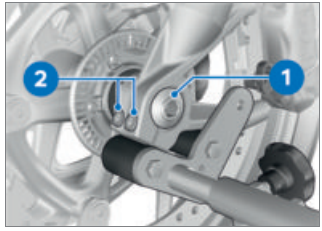
- Remove the mounting bolts **4** of the left and right brake calipers.



- Push brake pads **1** apart slightly by turning the brake caliper **2** back and forth against brake disc **3**.
- Carefully pull the brake calipers back and outward to remove them from the brake discs.
- Raise the front of motorcycle, preferably using a BMW Motorrad front wheel stand, until the front wheel rotates freely.
- Installing front wheel stand (➠ 161).

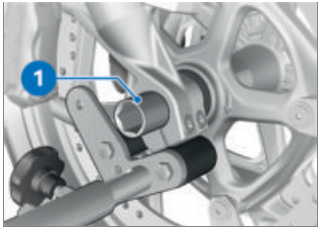


- Loosen axle clamping screws **1**.



- Remove the screw **1**.
- Loosen axle clamping screws **2**.

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



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

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

Installing front wheel

WARNING

Use of a wheel which does not comply with series specifications

Malfunctions during control interventions by ABS and ASC/DTC

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

ATTENTION

Tightening of screwed connections with incorrect tightening torque

Damage or loosening of screwed connections

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

- Lubricate the contact surface on the spacer bushing **1**.

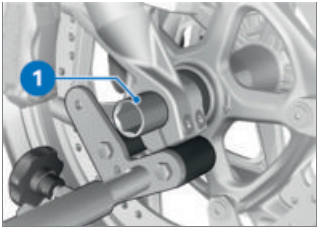
Lubricant
Optimoly TA

- Insert the spacer bushing **1** into the wheel hub on the left side.

ATTENTION

Front wheel installation opposite the running direction
Accident hazard
- Observe running direction arrows on tire or rim.

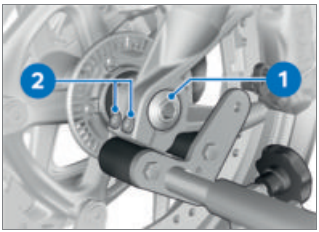
- Roll the front wheel into the front suspension.



- Lubricate the quick-release axle **1**.

Lubricant
Optimoly TA

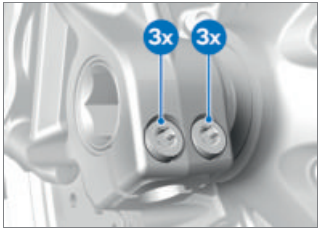
- Lift the front wheel and install the quick-release axle **1**.
- Remove front wheel stand and firmly compress front forks. Do not actuate handbrake lever at the same time.
- Installing front wheel stand (➠ 161).



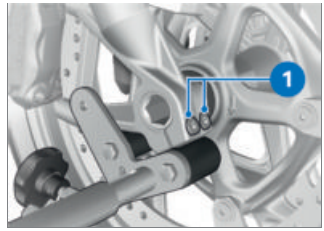
- Install the screw **1** to the specified torque. Brace quick-release axle on the right side at the same time.

Quick-release axle in telescopic fork
M20 x 1.5
37 lb/ft (50 Nm)

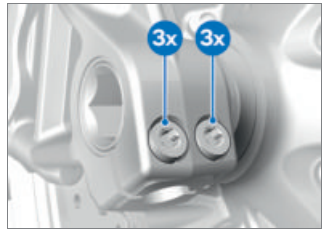
- Tighten axle clamping screws **2** to appropriate torque.



Clamping bolts in the axle adapter
Tightening sequence: Tighten the screws 6 times, alternating between one and the other each time
M8 x 35
14 lb/ft (19 Nm)



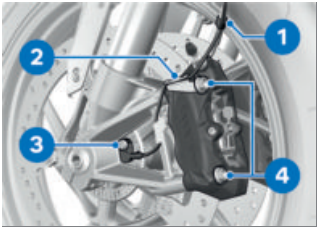
- Tighten axle clamping screws **1** to appropriate torque.



Clamping bolts in the axle adapter
Tightening sequence: Tighten the screws 6 times, alternating between one and the other each time
M8 x 35
14 lb/ft (19 Nm)

- Remove the front wheel stand.

- Put the brake calipers on the left and right onto the brake discs.



- Install mounting bolts **4** on left and right to the specified torque.

Brake caliper on telescopic forks
M10 x 65
28 lb/ft (38 Nm)

- Remove adhesive tape from wheel rim

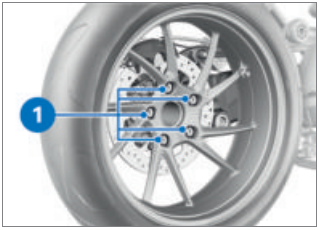
WARNING

Brake pads do not contact the brake disc
Risk of accident due to delayed braking effect.
- Before driving off, check that the braking effect kicks in without any delay.

- Engage the brakes repeatedly until the brake pads make contact with the discs.
- Insert the wheel speed sensor cable into the holding clips **1** and **2**.
- Insert the wheel speed sensor into the bore and install screw **3**.

Wheel speed sensor on fork
M6 x 16
Joint compound: Microencapsulated or medium-strength screw lock
6 lb/ft (8 Nm)

Removing rear wheel
- Removing the silencer (➠ 177).



- Shift into first gear.
- Remove the screws **1** of the rear wheel while supporting the wheel.
- Roll rear wheel out toward rear.

Installing rear wheel

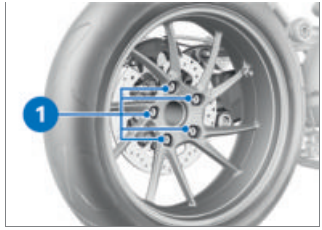
WARNING

Use of a wheel which does not comply with series specifications
Malfunctions during control interventions by ABS and ASC/DTC
- Please see the information on the effect of wheel sizes on the ABS and ASC/DTC chassis control systems at the beginning of this chapter.

ATTENTION

Tightening of screwed connections with incorrect tightening torque
Damage or loosening of screwed connections
- Always have the tightening torques checked by a specialized workshop, preferably an authorized BMW Motorrad retailer.

- Place rear wheel on rear wheel support.



- Install the lug bolts **1** with the specified torque.

	Tighten rear wheel on wheel flange
Tightening sequence: Tighten crosswise	
M10 x 1.25 x 40	
44 lb/ft (60 Nm)	

- Installing the silencer (➠ 178).

SILENCER

Removing the silencer

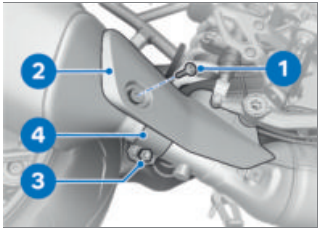
CAUTION

Hot exhaust system
Burn hazard
- Do not touch hot exhaust system.

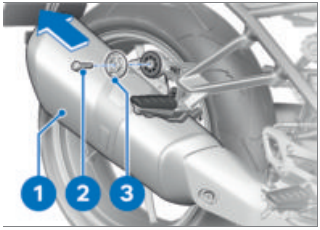
- Let the end muffler cool down.
- Make sure ground is level and firm and place motorcycle on a suitable auxiliary stand. BMW Motorrad rec-

ommends the BMW Motorrad rear-wheel stand.
- Installing rear-wheel stand (➠ 162).

–with center stand OE
- Put the motorcycle up on its center stand, making sure the ground is level and firm.◁



- Remove screw **1** from cover **2**.
- Loosen the nut **3** on the clamp **4**.

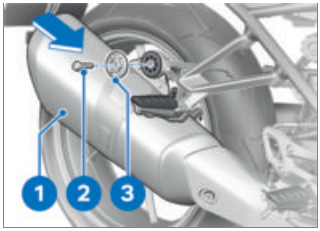


- Remove screw **2** and washer **3**.
- Remove silencer **1**.

Installing the silencer

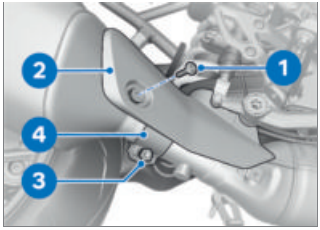
ATTENTION

Tightening of screwed connections with incorrect tightening torque
Damage or loosening of screwed connections
- Always have the tightening torques checked by a specialized workshop, preferably an authorized BMW Motorrad retailer.



- Push the circlip onto the silencer.
- Push silencer **1** up to the stop.
- Install screw **2** and washer **3**.

Muffler on rear frame
M8 x 35
14 lb/ft (19 Nm)



- Tighten nut **3** of circlip **4**.

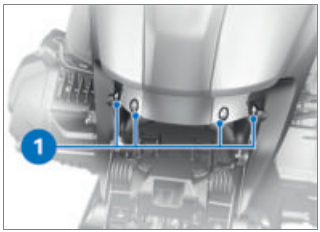
	Clamp on silencer and exhaust manifold
18 lb/ft (24 Nm)	

- Install screw **2** of cover **1**.

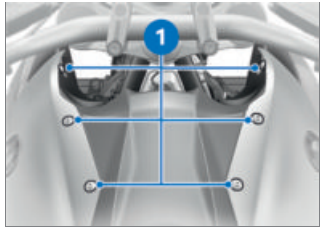
AIR FILTER

Replace air filter insert

- Remove rider's seat (➠ 81).



- Remove screws **1**.

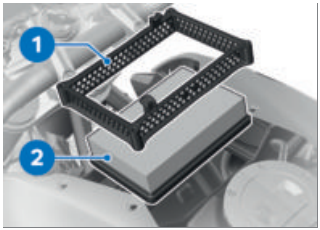


- Remove the screws **1** and move both side trim panels slightly apart.

- Remove screws **1**.
- Remove center fairing panel.

- Remove screws **1**.
- Remove air filter cover.

- Remove frame **2**.
- Remove air filter element **1**.



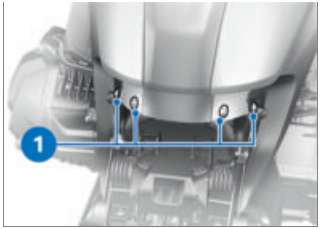
- Clean air filter element **2** or replace, if necessary.
- Insert air filter element **2** and frame **1**.

- Fit the air filter cover.
- Install screws **1**.

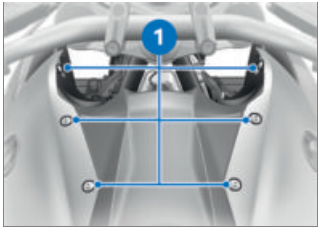
	Air filter cover on intake silencer
Tightening sequence: Tighten crosswise	
M5 x 50	
2 lb/ft (3 Nm)	

- Position the center fairing panel, while paying attention to connections to the side sections.

- Install screws **1**.



- Install screws **1**.



- Install screws **1**.
- Installing the rider's seat (➠ 81).

LIGHT SOURCE

Replacing front and rear turn indicator light sources

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

- Remove the screw **1**.

- Pull headlight diffuser on screw connection side out of light housing.

- Remove light source **1** from the light housing by turning it counterclockwise.
- Replace defective light sources.

Bulbs for flashing turn indicators
RY10W / 12 V / 10 W

Bulbs for flashing turn indicators, rear
RY10W / 12 V / 10 W

- To prevent contaminants from being deposited on the glass surface, always use a clean, dry cloth to hold the light source.
- Install the light source **1** by turning it clockwise into the light housing.

- Insert the headlight diffuser from the vehicle side into the light housing and close it.

- Install the screw **1**.

Replacing LED tail light

The LED tail light can only be completely replaced.

- For details please contact a specialist service facility, preferably an authorized BMW Motorrad Dealer.

Replacing LED parking lights

- The LED parking lights can only be replaced as a unit. For details please contact a specialist workshop, preferably an authorized BMW Motorrad retailer.

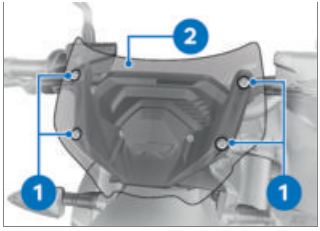
Replacing low and high-beam light sources in headlight

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

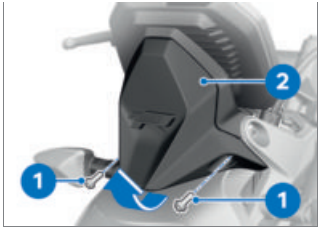
The operations for replacing the low-beam headlight described here apply similarly to the high-beam headlight.

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

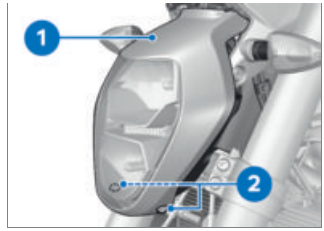
–with windshield, sport OE



- Remove screws **1**. When doing so, make sure not to lose the shouldered bushings in the grommets.
- Remove the windshield **2**.◁

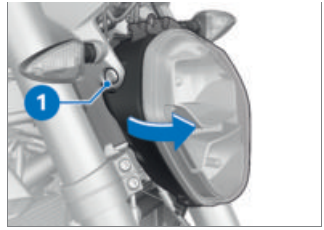


- Remove screws **1**.
- Carefully flip up the cover **2** and take it off.

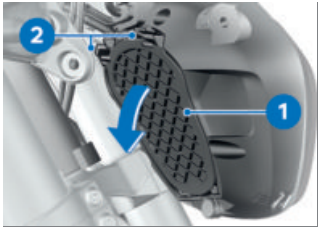


- Remove screws **2** and first pull out the cover **1** somewhat at top, then remove it.

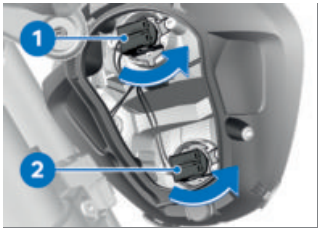
- Loosen screw **1** 2 full turns.



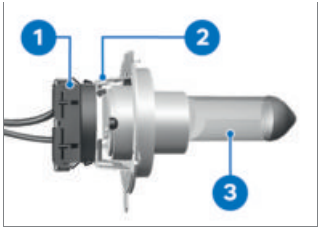
- Remove screw **1** and swivel the headlight to the side.



- Press the retaining hook **2** somewhat downward and remove the cover **1** by pulling on the retaining hook **2**.



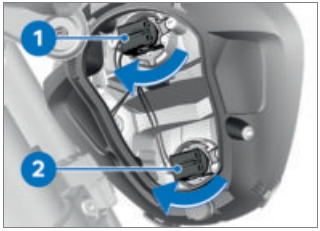
- Remove the connector with light source **1** for low beams by turning it counterclockwise.
- Remove the connector with light source **2** for high beams by turning it counterclockwise.



- Pull the light source **3** out of the connector **1**. When doing so, make sure that the holder **2** remains on the connector.
- Replace defective light sources.

Bulbs for low-beam headlight
H7 12 V 55 W

Bulb for high-beam headlight
H7 12 V 55 W

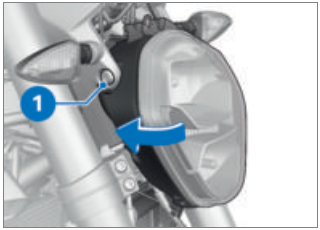


- To prevent dirt from being deposited on the glass surface, always use a clean, dry

cloth to hold the light source or touch only the base while inserting it into the connector.

- Insert the connector with light source **1** for low beams into the light housing and turn it clockwise.
- Insert the connector with light source **2** for high beams into the light housing and turn it clockwise.

- Position the cover at the bottom on the connection **2** and fasten the retaining hooks **1** at the top.

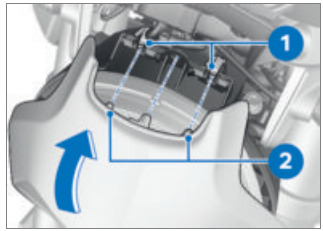


- Swivel the headlight back into the original position and install screw **1**.

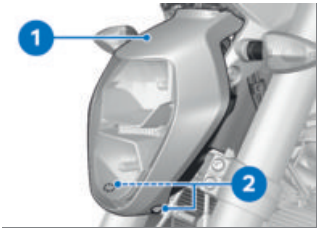
Headlight on front panel carrier
M8 x 16
14 lb/ft (19 Nm)

- Tighten screw **1**.

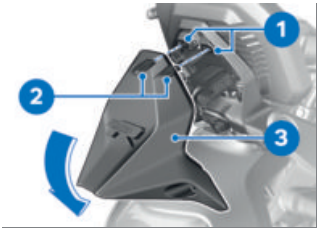
Headlight adjuster
M6
4 lb/ft (6 Nm)



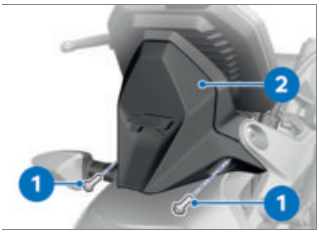
- Clip both retaining hooks **2** into the holders **1**.



- Attach the cover **1** at the bottom and install screws **2**.

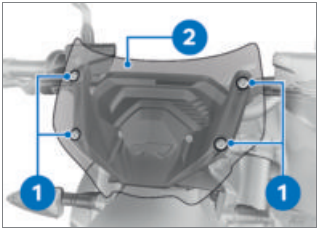


- Attach the cover **3** with retaining hook **2** into the holder **1** and flip it down.



- Fasten the cover **2** with screws **1**.

–with windshield, sport OE



- Attach the windshield **2** while paying attention to the collar bushings and grommets.
- Install screws **1**.

Windshield in bracket
M5 x 20
3 lb/ft (4 Nm)◁

Replace additional LED headlight

–with LED additional headlight OA

The LED additional headlights can only be completely replaced; it is not possible to replace individual LEDs.
Please contact a specialist service facility, preferably an authorized BMW Motorrad retailer.

JUMP-STARTING

ATTENTION

Current too high when jump-starting the motorcycle
Cable fire or damage to the motorcycle electronics
- Do not jump-start the motorcycle using the power socket, only via the battery terminal.

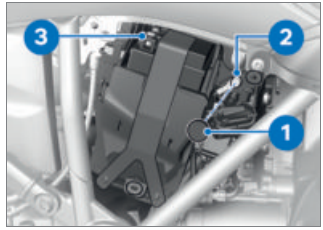
ATTENTION

Contact between crocodile clips of jump leads and motorcycle
Danger of short circuit
- Use jump leads fitted with fully insulated crocodile clips at both ends.

ATTENTION

Jump-starting with a voltage higher than 12 V
Damage to the motorcycle's electronics
- The battery of the donor motorcycle must have a voltage of 12 V.

- Park the motorcycle, making sure the ground is level and firm.
- Removing the battery cover (➠ 190).
- Do not disconnect the battery from the electrical system for an external start.



- Remove protective cap **1**.
- Begin by connecting the red jumper cable to the remote positive terminal **2** on the empty battery and the other end to the positive terminal of the donor battery.
- Then clamp one end of the black jumper cable to the donor battery's negative terminal **3** while connecting the other end to the empty battery's negative terminal.
- Run engine of donor vehicle during jump-starting procedure.
- Start the engine of the vehicle with the empty battery in the usual way; if the engine does not start, wait a few minutes before repeating the attempt

to protect the starter motor and the donor battery.
- Allow both engines to idle for a few minutes before disconnecting jumper cables.
- Disconnect the jumper cable from the negative terminal first, then from the positive terminal.

To start the engine, do not use start sprays or similar items.

- Install the protective cap.
- Installing the battery cover (➠ 192).

BATTERY

Maintenance instructions

Correct battery maintenance combined with proper charging and storage procedures extends the battery's service life, and is also required for warranty claims.

Compliance with the points below is important in order to maximize battery life:

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

ATTENTION

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

Total discharge of battery leading to a rejection of warranty claims

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

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

Charge connected battery

ATTENTION

Charging the battery connected to the vehicle using the battery terminals
Damage to the motorcycle's electronics
- Disconnect the battery before charging on the battery terminals.

ATTENTION

A fully discharged battery must be charged via a power socket or extra socket.
Damage to vehicle electronics
- A fully discharged battery (battery voltage less than 12 V, indicator lights and multifunction display remain off when ignition is switched on) must always be charged directly at the poles of the **disconnected** battery.

ATTENTION

Unsuitable chargers connected to the power socket
Damage to charger and vehicle electronics
- Use suitable BMW chargers. The correct charger is available through your authorized BMW Motorrad retailer.

- Charge disconnected battery via onboard socket.

The motorcycle's onboard electronics know when the battery is fully charged. The onboard socket is switched off when this happens.

- Comply with operating instructions of charger.

If you are unable to charge the battery via the onboard socket, you may be using a charger that is not compatible with your motorcycle's electronics. In this case, charge the battery directly from the terminals of the battery disconnected from the vehicle.

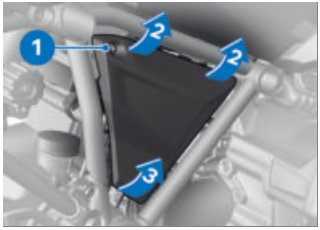
Charging disconnected battery

- Charge battery using a suitable charger.

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

In the case of longer periods when the motorcycle is not being used, the battery must be recharged regularly. See the instructions for caring for your battery. Always fully recharge the battery before returning it to use.

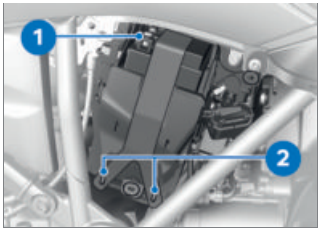
Removing battery



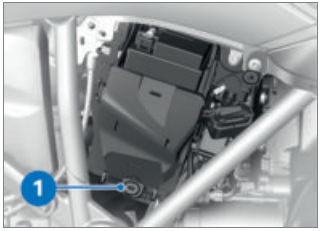
- Turn off the ignition.
- Remove screw **1**.
- Pull battery cover at top slightly forward at positions **2**.
- Remove the battery cover upward at position **3** in order not to damage the battery cover and the mount.

–with anti-theft alarm system (DWA) OE

- Turn off the anti-theft alarm system if necessary.◁



- Disconnect the negative battery cable **1** and rubber strap **2**.
- Insulate the negative battery cable **1** with adhesive strip.



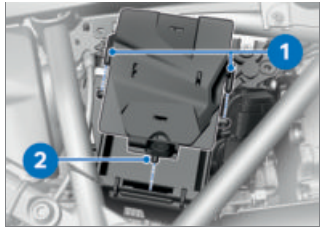
- Pull the retaining plate at position **1** outward and remove it upward.
- Lift battery slightly out of holder sufficiently for positive terminal to be accessible.

- Disconnect the positive battery cable **1** and pull out the battery.

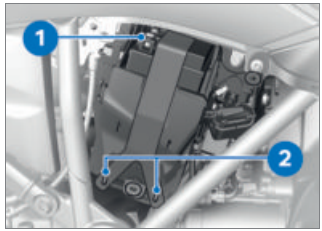
Installing a battery

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

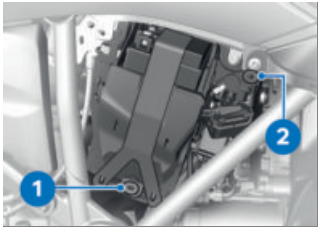
- Fasten the positive battery cable **1**.
- Slide battery into holder.



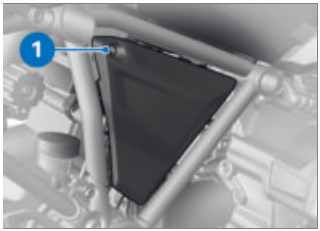
- First press retaining plate into the mounts **1** and then press under the battery at point **2**.



- Remove the adhesive strip from the negative battery cable **1**.
- Fasten the negative battery cable **1**.
- Fasten battery with rubber strap **2**.



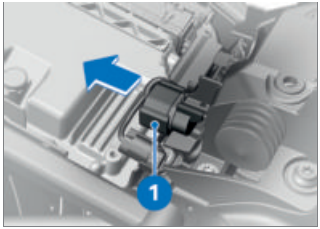
- Insert battery cover into mount **1** and press it into the mount **2**.



- Install the screw **1**.
- Setting the clock (➠ 93).
- Setting the date (➠ 92).

FUSES

Replacing fuses



- Turn off the ignition.
- Remove rider's seat (➠ 81).
- Detach connector **1**.

ATTENTION

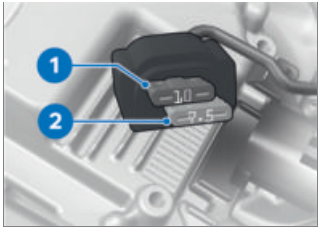
Bypassing defective fuses
Risk of short circuit and fire
- Do not bypass defective fuses.
- Replace defective fuses with new fuses.

- Consult the fuse assignment diagram and replace the defective fuse.

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

- Insert connector **1**.
- Installing the rider's seat (➠ 81).

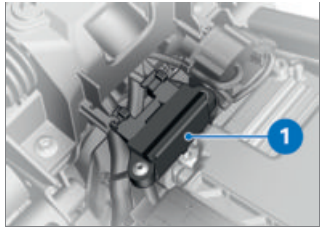
Fuse assignments



1 10 A
Instrument cluster
Anti-theft alarm system (DWA)
Ignition lock
Main relay
Diagnostic socket

2 7.5 A
Multifunction switch, left
Tire pressure control (T-PC)
Yaw rate sensor

Fuse for the alternator regulator



1 50 A
Alternator regulator

DIAGNOSTIC SOCKET

Detaching the diagnostic socket

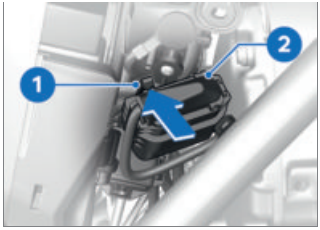
CAUTION

Incorrect procedure when disconnecting the diagnostic socket for onboard diagnosis

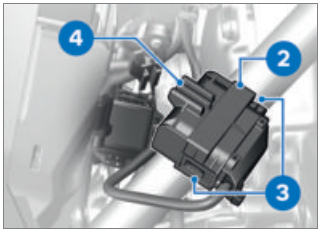
Vehicle experiences malfunctions

- Do not have the diagnostic socket disconnected except during BMW Motorrad service by a specialist workshop or other authorized persons.
- Have work carried out by appropriately trained personnel.
- Observe the specifications of the vehicle manufacturer.

- Removing the battery cover (➠ 190).



- Press the hook **1** and remove the diagnostic socket **2** by pulling it upwards.

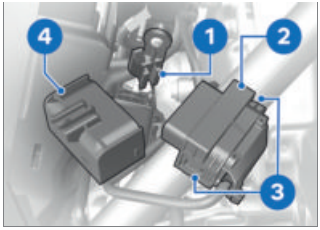


- Press the locks **3** on both sides.
- Detach the diagnostic socket **2** from the bracket **4**.

» The interface for the diagnostic and information system can be connected to the diagnostic socket **2**.

Fastening the diagnostic socket

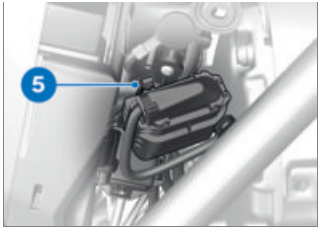
- Disconnect the interface for the diagnostic and information system.



- Plug the diagnostic socket **2** into the bracket **4**.

» The locking mechanisms **3** engage on both sides.

- Connect the bracket **4** to the mount **1**.



- Make sure that the hook **5** engages.
- Installing the battery cover (➠ 192).

ACCESSORIES

10

GENERAL NOTES

CAUTION

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

The safety, function and suitability of the parts and accessory products have been thoroughly tested by BMW. Therefore, BMW assumes responsibility for these products. BMW shall not be held liable for unapproved parts and accessory products of any kind.
Comply with the legal requirements for any modifications.
Consult the road traffic licensing regulations of your country.
Your authorized BMW Motorrad retailer offers you qualified advice for choosing genuine BMW parts, accessories and other products.
More information on the topic of accessories is available at: **bmw-motorrad.com/equipment**.

ONBOARD POWER SOCKETS

Connection of electrical devices
– The ignition must be switched on before electrical devices connected to the power sockets can be operated.

Cable routing
– The cables from the onboard sockets to the auxiliary devices must be routed in such a way that they do not impede the rider.
– Cable routing must not restrict the steering angle and the handling characteristics.
– Cables must not be trapped.

Automatic deactivation

– The onboard sockets are automatically switched off during starting.
– These sockets are switched off approx. 15 minutes after switching off the ignition to reduce the strain on the onboard electrical system. Additional devices with low power consumption are possibly not detected by the vehicle electronics. In these cases, onboard sockets are already switched off shortly after the ignition is switched off.
– In case of insufficient battery voltage, the onboard sockets are switched off to maintain the ability to start the motorcycle.
– If the maximum loadability specified in the technical data is exceeded, the onboard sockets are switched off.

CASE

– with touring case OA

Opening a case

- Turn the key **1** counterclockwise to the **OPEN** position.
- Pull the gray release lever **2** **OPEN** upward and simultaneously open the case lid.

Closing a case

- Turn the key **1** counterclockwise to the **OPEN** position.
- Press the catches **2** of the case lid into the locking mechanisms **3**. Ensure that no objects are trapped between lid and case.
- Pull the gray release lever **4** **OPEN** upward and simultaneously close the case lid.

» The lid clicks audibly into place.
- Turn the key **1** in the case lock so that it points in the driving direction and remove it.

Removing a case

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

- Pull the black release lever **1 RELEASE** upward while simultaneously pulling the case outward.
- Then lift case out of lower mounting.

Attaching a case

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

- Insert the case in the case carrier **1**, then swing as far as possible onto mount **2**.
- Pull the black release lever **3 RELEASE** upward while simultaneously pushing the case into the upper mount **2**.
- Press the black release lever **3 RELEASE** down until it engages.
- Turn the key in the case lock so that it points in the driving direction and remove it.

Maximum payload and top speed

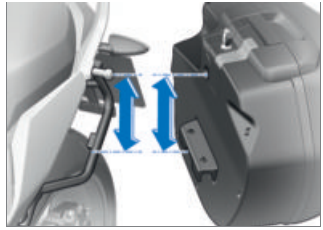
Note the maximum permissible payload and the speed limit for riding with cases fitted, as stated on the label inside the case.

If you cannot find your combination of vehicle and case on the sign, contact your BMW Motorrad partner.

The following values apply for the combination described here:

Maximum speed for riding with case
max 112 mph (max 180 km/h)
Payload per case
max 22 lbs (max 10 kg)

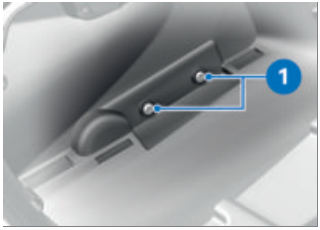
Secure hold



If a case wobbles or is difficult to fit, it must be adapted to the gap between the upper and lower mount.

WARNING

Improperly installed case.
Impairment of riding safety.
- Cases may not shake and must be fastened play-free. If some play is determined after longer use, readjust the retaining claw.

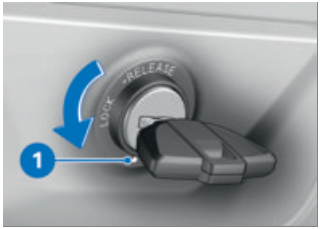


Use the screws **1** inside the case for this purpose.

TOPCASE

–with topcase OA

Opening a topcase



- Turn the key in the topcase lock to position **1**.

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

» The release lever **2** pops up.

- Pull the release lever all the way up.

» The topcase lid can be opened.

Closing a topcase

- Pull the release lever **1** all the way up.
- Close the topcase lid and hold it down. Ensure that nothing gets trapped between the lid and case.

The topcase can also be locked if the lock is in the **LOCK** position. Under such cir-

cumstances, ensure that the vehicle key is not in the topcase.

- Press release lever **1** down until it engages.
- Turn key in topcase lock to the **LOCK** position and remove.

Removing a topcase

- Turn the key in the topcase lock to position **1**.

» Carrying handle pops out.

- Fold carrying handle **1** all the way up.
- Raise the rear of the topcase and pull it off the luggage rack.

Installing a topcase

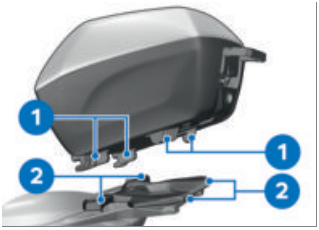
WARNING

Topcase not properly secured

Driving safety is impaired

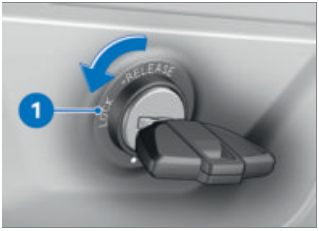
- Topcase must not shake and must be fastened clearance-free.

- Fold the carrying handle up to the stop.



- Hook the topcase into the luggage rack. Make sure that the hooks **1** are securely seated in corresponding mounts **2**.

- Press the carrying handle **1** down until it engages.



- Turn key in topcase lock to the **1** position and remove.

Maximum payload and maximum speed

Observe the maximum payload and maximum speed for riding with topcase fitted, as indicated on the sign inside the topcase.

If you cannot find your combination of vehicle and topcase on the sign, contact your authorized BMW Motorrad retailer. The following values apply to the combination described here:

Maximum speed when riding with loaded Vario topcase
max 112 mph (max 180 km/h)

Payload of Vario topcase
max 11 lbs (max 5 kg)

NAVIGATION SYSTEM

Fastening navigation system securely

–with preparation for navigation system OE

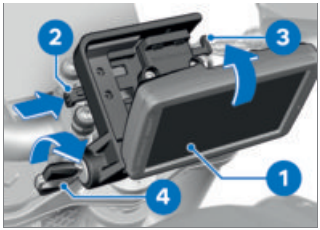
–with navigation system OA

The navigation preparation is suitable as from the BMW Motorrad Navigator IV.

The locking system of the Mount Cradle offers no protection against theft. Remove the navigation system and store in a safe place after every drive.

- Turn the ignition key **1** counterclockwise.
- Pull the shut-off lock **2** to the **left**.
- Press in the locking mechanism **3**.

» The Mount Cradle is unlocked and the cover **4** can be removed with a rotational movement toward the front.



- Mount the navigation system **1** in the lower area and swing backward with a rotational movement.

» Navigation system audibly engages.

- Slide the shut-off lock **2** completely to the **right**.

» The locking mechanism **3** is locked.

- Turn the ignition key **4** clockwise.

» Navigation system is locked and ignition key can be removed.

Remove navigation system and install cover

–with preparation for navigation system OE

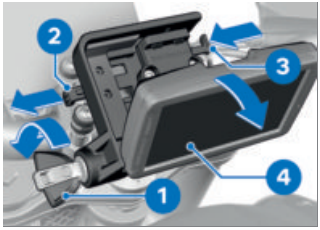
–with navigation system OA

ATTENTION

Dust and dirt on the contacts of the Mount Cradle

Damage to the contacts

- Reinstall the cover after end of each drive.



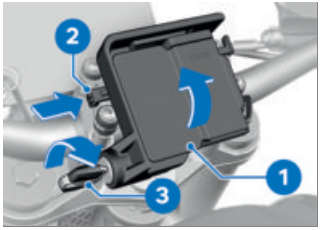
- Turn the ignition key **1** counterclockwise.
- Pull the shut-off lock **2** completely to the **left**.

» The locking mechanism **3** is unlocked.

- Slide the locking mechanism **3** completely to the **left**.

» The navigation system **4** will be unlocked.

- Remove the navigation system **4** downward with a tilting movement.



- Mount the cover **1** in the lower area and swing upward with a rotational movement.

» Cover audibly engages.

- Slide the shut-off lock **2** to the **right**.
- Turn the ignition key **3** clockwise.

» The cover **1** is secured.

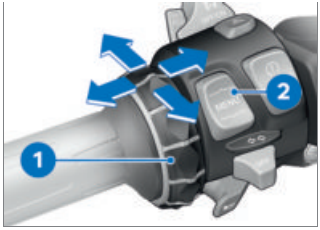
Operating the navigation system

–with preparation for navigation system OE

The following description refers to the BMW Motorrad Navigator V and the BMW Motorrad Navigator VI. The BMW Motorrad Navigator IV does not offer all options described.

Only the latest version of the BMW Motorrad communication system is supported. A software update may be required for the BMW Motorrad communication system. In this case, please contact your authorized BMW Motorrad retailer.

If the BMW Motorrad Navigator is installed and the operating focus is changed to the Navigator (➠ 89), some of its functions can be operated directly from the handlebars.



The navigation system is operated using the Multi-Controller **1** and the rocker button MENU **2**.

Turning the Multi-Controller 1 up and down
On the compass and Mediaplayer screen: Increase or decrease the volume of a BMW Motorrad communication system connected via Bluetooth.
On the BMW special menu: Select menu items.

Briefly tilt the Multi-Controller 1 to the left and right
Change between the main screens of the Navigator:
–Map view
–Compass
–Mediaplayer
–BMW special menu
–My motorcycle page

Tilt and hold the Multi-Controller 1 to the left and right
Activate specific functions on the Navigator display. These functions are indicated by a right arrow or left arrow above the corresponding touch field.

The function is triggered by long actuation to the right.

The function is triggered by long actuation to the left.

Press the bottom of the MENU 2 rocker button
Change the operating focus to the Pure Ride view.

In detail, the following functions can be operated:
Map view
–Turning upward: zooms in on map section (Zoom in).
–Turning downward: zooms out of map section (Zoom out).

Compass page
–Turning increases or decreases the volume of a BMW Motorrad communication system connected via Bluetooth.

BMW special menu

–Speak: Repeat last navigation announcement.
–Waypoint: Save current location as a favorite.
–Navigate home: Starts navigation to the home address (is grayed-out if no home address is set).
–Mute: Turn automatic navigation announcements off or on (off: The top line in the display shows a crossed-out lip icon). Navigation announcements can still be output via "Speak". All other sound outputs remain switched on.
–Switching off display: Switch off display.
–Call home: Calls the home phone number stored in the navigator (only displayed when a communication system and a phone are connected).
–Detour: Activates the detour function (only displayed if a route is active).
–Skip: Skips the next waypoint (only displayed if route is provided with waypoints).

My Motorcycle

–Turn: changes the number of data sets displayed.
–Touching a data field on the display opens a menu for selecting the data.
–The values available for selection depend on the optional equipment that is installed.

Mediaplayer

–Long press to the left: Play previous title.
–Long press to the right: Play next title.
–Turning increases or decreases the volume of a BMW Motorrad communication system connected via Bluetooth.

The Mediaplayer function is only available when using a Bluetooth device as per A2DP standard, e.g., a BMW Motorrad communication system.

Warning and status messages

–with navigation system OA

Warning and status displays of the motorcycle are indicated with a corresponding symbol **1** at the upper left on the map view.

If a BMW Motorrad communication system is connected, an acoustic signal is also sounds in case of a warning.

If several warning messages are active, the number of messages is indicated below the warning triangle.
A list of all warning messages is opened by pressing on the warning triangle with more than one message.
Additional information is display when a message is selected.

Detailed information cannot be displayed for all warnings.

Special functions
–with preparation for navigation system OE

Due to integration of the BMW Motorrad Navigator, there are differences 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 low-fuel warning light is transmitted from the vehicle to the Navigator. If the message is active, the nearest gas stations are shown when you press on the message.

Security settings
The BMW Motorrad Navigator V and the BMW Motorrad Navigator VI can be secured against unauthorized use with a four-digit PIN (Garmin Lock). If this function is activated while the Navigator is installed in the vehicle and the ignition is turned on, you will be asked if you want to add this vehicle to the list of secure vehicles. If you confirm this question by answering "Yes", then the Navigator will save the vehicle identification number of this vehicle.

A maximum of five VINs can be saved in this way.
Afterwards, if the Navigator is turned on when the ignition is turned on in one of these vehicles, then a PIN no longer needs to be entered.
If the Navigator is removed from the vehicle while it is turned on, then for security reasons a PIN prompt is started.

Screen brightness
Screen brightness is adjusted by the motorcycle while the unit is installed. There is no need for manual input.
If desired, automatic setting can be switched off in the Navigator via the display settings.

CARE

11

CARE PRODUCTS

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

ATTENTION

Use of unsuitable cleaning and care agents

Damage to motorcycle parts

- Do not use any solvents such as nitro thinners, cold cleaners, fuel or similar, and do not use cleaning agents that contain alcohol.

ATTENTION

Use of highly acidic or alkaline cleaning agents

Damage to motorcycle parts

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

WASHING THE VEHICLE

BMW Motorrad recommends that you use BMW Insect Remover to soften and wash off insects and stubborn dirt from painted parts before washing the vehicle.

To prevent stains, do not wash the vehicle immediately after it has been exposed to bright sunlight and do not wash it in the sun.

Regularly clean the fork tubes of soiling.

Make sure that the vehicle is washed frequently, especially during the winter months.

To remove road salt, clean the motorcycle with cold water immediately after every trip.

After riding in the rain in high humidity or after washing the vehicle, condensation can form in the inside the headlight. During this process, the headlight can become foggy for a while. If moisture accumulates on an ongoing basis in the headlight, contact a specialist workshop, preferably an authorized BMW Motorrad retailer.

WARNING

Damp brake disks and brake pads after washing the motorcycle, after riding through water or in the rain
Poorer braking action, accident hazard
- Brake early until the brake rotors and brake pads are dry.

ATTENTION

Increased effect of salt caused by warm water
Corrosion
- Only use cold water to remove road salt.

ATTENTION

Damage caused by high water pressure from high-pressure cleaners or steam-jet devices
Corrosion or short circuit, damage to labels, to seals, to hydraulic brake system, to the electrical system and the seat
- Exercise caution when using high-pressure or steam-jet devices.

CLEANING SENSITIVE MOTORCYCLE PARTS

Plastics

ATTENTION

Use of unsuitable cleaning agents
Damage to plastic surfaces
- Do not use abrasive cleaners or cleaners containing alcohol or solvents.
- Do not use insect sponges or sponges with a hard surface.

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

Windshields and lenses are manufactured in plastic
Clean off dirt and insects with a soft sponge and plenty of water.

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

Clean with water and sponge only.


Do not use chemical cleansers.

TFT display
Clean the TFT display with warm water and detergent. Then dry with a clean cloth, e.g. a paper towel.

Chrome
Carefully clean chrome parts with plenty of water and BMW Motorrad Care Products motorcycle cleaner. This is required in particular for removing road salt.
Use BMW Motorrad metal polish for additional treatment.

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

ATTENTION

Bending of radiator fins
Damage to radiator fins
- When cleaning, ensure that the cooler fins are not bent.

Rubber
Treat rubber components with water or BMW rubber care product.

ATTENTION

Use of silicone sprays for care of rubber seals
Damage to rubber seals
- Do not use silicone sprays or care products that contain silicone.

CARE OF PAINTWORK

Washing the motorcycle regularly will help counteract the long-term effects of substances that damage the paint, especially if your motorcycle is ridden in areas with high air pollution or natural sources of dirt, such as tree resin or pollen. However, remove particularly aggressive substances immediately; otherwise changes in the paint or discoloration may occur. These include spilled fuel, oil, grease and brake fluid as well as bird droppings.
It is recommended to use BMW Motorrad solvent cleaner and then apply BMW Motorrad high gloss polish to preserve the paint.
Contaminants on the paint surface are particularly easy to see

after washing the vehicle. Remove this type of didrt immediately with cleaning benzene or ethyl alcohol on a clean cloth or cotton ball. BMW Motorrad recommends removing tar stains with BMW tar remover. Then add a protective wax coating to the paint at these locations.

PAINT PRESERVATION

Apply a preservative when water fails to bead up on the painted surface.
BMW Motorrad recommends BMW Motorrad high gloss polish or agents that contain carnauba or synthetic wax for paint preservation.

STORE MOTORCYCLE

- Clean motorcycle.
- Completely fill the motorcycle's fuel tank.

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

- Removing battery (➠ 190).
- Spray the brake and clutch lever, and the center and side stand pivots with a suitable lubricant.
- Protect metal and chrome-plated parts with an acid-free grease (Vaseline).
- Store the motorcycle in a dry room, raising it to remove the weight from both front wheels (preferably using the front and rear-wheel stands offered by BMW Motorrad).

PUTTING THE MOTORCYCLE INTO OPERATION

- Remove the protective wax coating.
- Clean the motorcycle.
- Installing a battery (➠ 191).
- Observe checklist (➠ 122).

TECHNICAL DATA

12

TROUBLESHOOTING CHART

Engine does not start.

Possible cause	Remedy
Side stand extended and gear engaged	Fold in side stand.
Gear engaged and clutch not operated	Place transmission in neutral or disengage clutch.
No fuel in tank	Refueling procedure (➠ 132).
Battery drained	Charge connected battery (➠ 189).
Overheating protection for starter motor has activated. Starter motor can only be actuated for a limited period.	Leave the starter motor to cool down for around 1 minute until it becomes available again.

Bluetooth connection is not established.

Possible cause	Remedy
Necessary pairing steps were not performed.	Refer to the operating instructions of the communication system for the necessary steps for pairing.
The communication system is not connected automatically despite successful pairing.	Switch off the communication system of the helmet and connect again after one to two minutes.
Too many Bluetooth devices are stored in the helmet.	Delete all pairing entries in the helmet (see the operating instructions of the communication system).
There are additional vehicles with Bluetooth-capable devices nearby.	Avoid simultaneous pairing with multiple vehicles.

Bluetooth connection is disrupted.

Possible cause	Remedy
Bluetooth connection to the mobile end device is interrupted.	Switch off energy saving mode.
Bluetooth connection to the helmet is interrupted.	Switch off the communication system of the helmet and connect again after one to two minutes.
Volume in the helmet cannot be adjusted.	Switch off the communication system of the helmet and connect again after one to two minutes.

Phone book is not displayed in the TFT display.

Possible cause	Remedy
Phone book was has not yet been transferred to the vehicle.	During pairing to the mobile end device, confirm the transfer of the telephone data (➠ 105).

Active route guidance is not displayed in the TFT display.

Possible cause	Remedy
Navigation from the BMW Motorrad Connected App was not transferred.	Call up the BMW Motorrad Connected App on the connected mobile end device before riding.
Route guidance cannot be started.	Ensure that there is a data connection to the mobile end device and check the map data on the mobile end device.

THREADED FASTENERS

Front wheel	Value	Valid
Brake caliper on telescopic forks		
M10 x 65	28 lb/ft (38 Nm)	
Quick-release axle in telescopic fork		
M20 x 1.5	37 lb/ft (50 Nm)	
Clamping bolts in the axle adapter		
M8 x 35	**Tightening sequence: Tighten the screws 6 times, alternating between one and the other each time**	
	14 lb/ft (19 Nm)	

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

Mirror arm	Value	Valid
Mirror (locknut) on adapter		
M10 x 1.25	Left-hand thread, 16 lb/ft (22 Nm)	
Adapter to clamping block		
M10 x 14 - 4.8	18 lb/ft (25 Nm)	

Gearshift lever	Value	Valid
Foot piece to gearshift lever		
M6 x 20 micro-encapsulated	7 lb/ft (10 Nm)	

Footbrake lever	Value	Valid
Foot piece on foot-brake lever		
M6 x 20 micro-encapsulated	7 lb/ft (10 Nm)	

Footrests	Value	Valid
Clamping block on footrest hinge		
M8 x 25	15 lb/ft (20 Nm)	
Footrest on clamping block		
M6 x 20 / M6 x 12	7 lb/ft (10 Nm)	

Handlebars	Value	Valid
Clamping block (handlebar clamp) to fork bridge		
M8 x 35	**Tightening sequence: tighten to block at front in direction of travel**	
	14 lb/ft (19 Nm)	
M8 x 30	**Tightening sequence: tighten to block at front in direction of travel**	–with preparation for navigation system OE
	14 lb/ft (19 Nm)	

FUEL

Recommended fuel quality	Super unleaded (max. 15% ethanol, E15) 89 AKI (95 ROZ/RON) 90 AKI
Alternative fuel quality	Regular unleaded (restrictions with regard to power and fuel consumption) (max. 15% ethanol, E15) 87 AKI (91 ROZ/RON) 87 AKI
Usable fuel quantity	Approx. 4.8 gal (Approx. 18 l)
Reserve fuel quantity	Approx. 1.1 gal (Approx. 4 l)
Fuel consumption	50 mpg (4.75 l/100 km)
CO2 emissions	110 g/km, according to WMTC
Emission standard	EU5
	TIER 2, measured in accordance with FTP75

ENGINE OIL

Engine oil, capacity	max 1.1 gal (max 4 l), with filter replacement
Specification	SAE 5W-40, API SL/ JASO MA2, Additives (for instance, molybdenum-based substances) are prohibited, because they would attack the coatings on engine components, BMW Motorrad recommends BMW Motorrad ADVANTEC Ultimate oil.

BMW recommends ADVANTEC ORIGINAL BMW ENGINE OIL

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

BMW recommends ADVANTEC ORIGINAL BMW ENGINE OIL

ENGINE

Engine number location	Lower right of engine block beneath the starter
Engine type	A74B12M
Engine design	Air-cooled/liquid-cooled two-cylinder four-stroke opposed-twin engine with two overhead, spur-gear-driven camshafts, a counterbalance shaft, and variable intake camshaft control BMW ShiftCam
Displacement	1254 cc (1254 cm^3)
Cylinder bore	4 in (102.5 mm)
Piston stroke	3 in (76 mm)
Compression ratio	12.5 g/cm^3
Nominal capacity	134 hp (100 kW), at engine speed: 7750 min^{-1}
Torque	105 lb/ft (143 Nm), at engine speed: 6250 min^{-1}
Maximum engine speed	max 9000 min^{-1}
Idle speed	1050 min^{-1}, Engine at operating temperature

CLUTCH	
Clutch design	Multiple-disc oil bath (anti-hopping)

TRANSMISSION	
Transmission design	Dog-engagement 6-speed transmission with helical gears
Transmission gear ratios	1.650 (33:20), Primary gear ratio 2.438 (39:16), 1st gear 1.714 (36:21), 2nd gear 1.296 (35:27), 3rd gear 1.059 (36:34), 4th gear 0.943 (33:35), 5th gear 0.848 (28:33), 6th gear 1.061 (35:33), Transmission output ratio

REAR-WHEEL DRIVE	
Type of final drive	Shaft drive with bevel gears
Type of rear-wheel guide	Cast-aluminum single swing arm with BMW Motorrad Paralever
Gear ratio of rear-wheel drive	2.818 (31/11 teeth)
Rear axle differential oil	SAE 70W-80 / hypoid axle G3

FRAME	
Frame design	Steel-tube frame with partially self-supporting drive unit, steel-tube rear frame
Location of type plate	Frame at front left on steering head
Location of the vehicle identification number	Frame at front right on steering head

SUSPENSION	
Front wheel	
Type of front suspension	Upside-down telescopic forks
–with Dynamic ESA OE	Upside down telescopic forks, diameter 54 mm, adjustable rebound and compression stage
Spring travel, front	5.5 in (140 mm), on front wheel
Rear wheel	
Type of rear-wheel guide	Cast-aluminum single swing arm with BMW Motorrad Paralever
Design of rear-wheel suspension	Central spring strut with coil spring, adjustable rebound-stage damping and spring preload
–with Dynamic ESA OE	ESA-2 with spring rate adjustment
Spring travel on the rear wheel	5.5 in (140 mm)

BRAKES	
Front wheel	
Type of front wheel brake	Hydraulically operated twin disk brake with 4-piston radial calipers and floating brake disks
Front brake pad material	Sintered metal
Rear wheel	
Type of rear wheel brake	Hydraulically operated disc brake with 2-piston floating caliper and fixed brake disc
Rear brake pad material	Sintered metal

WHEELS AND TIRES	
Recommended tire combinations	An overview of the current tire approvals is available from your authorized BMW Motorrad retailer or on the Internet at **bmw-motorrad.com**.
Speed category of front/rear tires	W, minimum requirement: 168 mph (270 km/h)
Front wheel	
Front wheel design	Aluminum cast wheel
Front-wheel rim size	3.5" x 17"
Front tire designation	120/70 - ZR 17
Load index for front tire	At least 58
Permissible front wheel load	max 397 lbs (max 180 kg)
Permissible front-wheel imbalance	max 0.2 oz (max 5 g)
Rear wheel	
Rear wheel design	Aluminum cast wheel
Rear-wheel rim size	5.5" x 17"
Rear tire designation	180/55 - ZR 17
Load index for rear tire	At least 73
Permissible rear wheel load	max 716 lbs (max 325 kg)
Permissible rear-wheel imbalance	max 1.6 oz (max 45 g)
Tire inflation pressures	
Front tire pressure	36.3 psi (2.5 bar), with cold tires, one-up and two-up mode
Rear tire pressure	42.1 psi (2.9 bar), with cold tires, one-up and two-up mode

ELECTRICAL SYSTEM	
Electrical rating of onboard sockets	max 5 A, all onboard sockets together
Fuse carrier 1	10 A, Slot 1: instrument cluster, anti-theft alarm system (DWA), ignition lock, main relay and diagnostic socket 7.5 A, Slot 2: left multifunction switch, Tire Pressure Control (TCP/RDC), yaw rate sensor
Fuse carrier	50 A, Fuse 1: Voltage regulator
Battery	
Battery design	AGM (Absorbent Glass Mat) battery
–with M Lightweight battery[OE]	Lithium ion battery
Battery voltage	12 V
–with M Lightweight battery[OE]	12 V
Battery capacity	12 Ah
–with M Lightweight battery[OE]	10 Ah
Spark plugs	
Spark plugs, manufacturer and designation	NGK LMAR8AI-10
Light sources	
Bulb for high-beam headlight	H7 12 V 55 W
Bulbs for low-beam headlight	H7 12 V 55 W
Bulb for parking light	LED
Bulb for taillight/brake light	LED
Bulbs for flashing turn indicators	RY10W / 12 V / 10 W

ANTI-THEFT ALARM SYSTEM	
Activation time	Approx. 30 s
Alarm duration	Approx. 26 s
Battery type	CR 123 A

DIMENSIONS	
Motorcycle length	85.2 in (2165 mm), measured across license-plate carrier
Motorcycle height	min 51.2 in (min 1300 mm), measured above mirror, at DIN unladen weight
Motorcycle width	34.6 in (880 mm), with mirrors 39.3 in (999 mm), with cases
Front-seat height	32.3 in (820 mm), without rider at DIN unloaded vehicle weight
–with rider's seat, low OE	29.9 in (760 mm), without rider at DIN unloaded vehicle weight
–with seat Sport OE	33.1 in (840 mm), without rider at DIN unloaded vehicle weight
Rider's inside-leg arc, heel to heel	72.4 in (1840 mm), without rider at unloaded vehicle weight
–with rider's seat, low OE	67.7 in (1720 mm), without rider at unloaded vehicle weight
–with seat Sport OE	73.8 in (1875 mm), without rider at unloaded vehicle weight

WEIGHTS	
Unloaded vehicle weight	527 lbs (239 kg), DIN unladen weight, ready for road, 90 % full tank of gas, without OE
Gross vehicle weight	1014 lbs (460 kg)
Maximum payload	487 lbs (221 kg)

PERFORMANCE DATA	
Maximum speed	>124 mph (>200 km/h)
–with touring case OA	112 mph (180 km/h)
–with topcase OA	112 mph (180 km/h)

SERVICE

13

REPORTING SAFETY DEFECTS

If you think that your motorcycle has a fault which may cause an accident, injury or death, you must inform the NHTSA (National Highway Traffic Safety Administration) immediately and BMW of North America, LLC.
If the NHTSA receives other similar complaints, it may open an investigation. If it finds that a safety defect exists in a group of vehicles, the NHTSA may order the manufacturer to perform a recall and remedy campaign. However, the NHTSA cannot become involved in individual problems between you, your authorized BMW Motorrad retailer, or BMW of North America, LLC.
You can contact the NHTSA by calling the Vehicle Safety Hotline on 1–888–327–4236 (Teletypewriter TTY for the hearing impaired: 1–800–424–9153) for free, by visiting the website at http:// www.safercar.gov or by writing to Administrator, NHTSA, 400 Seventh Street, SW., Washington, DC 20590. Further information on vehicle safety is available at http:// www.safercar.gov.
Canadian customers who wish to report a safetyrelated defect to Transport Canada, Defect Investigations and Recalls, may call the toll-free hotline 1–800–333–0510. You can also obtain other information about motor vehicle safety from http:// www.tc.gc.ca/roadsafety.

BMW MOTORRAD SERVICE

With its worldwide retailer network, BMW Motorrad can attend to you and your motorcycle in over 100 countries around the globe. Authorized BMW Motorrad retailers have the technical information and expertise needed to reliably conduct all preventive maintenance and repair procedures on your BMW.
You will find the nearest authorized BMW Motorrad retailer at our website:
bmw-motorrad.com

WARNING

Improperly performed maintenance and repair work
Accident hazard caused by subsequent damage
- BMW Motorrad recommends having corresponding work on the motorcycle carried out by a specialized workshop, preferably by an authorized BMW Motorrad retailer.

To ensure that your BMW is always in optimum condition, BMW Motorrad recommends that you comply with the maintenance intervals specified for your motorcycle.
Have all preventive maintenance and repair procedures that have been carried out confirmed in the "Service" chapter in this manual. Documented proof of scheduled preventive maintenance is essential for generous treatment of claims submitted after the warranty period has expired (goodwill).

You can obtain information on the contents of the BMW Motorrad Services from your BMW Motorrad retailer.

BMW MOTORRAD SERVICE HISTORY

Entries

Maintenance work that has been performed is recorded in the diagnostics and information system. Like a Service Booklet, these entries provide proof of regular maintenance.
If an entry is made in the vehicle's electronic Service History (eSH), service-related data is stored on the central IT systems of BMW AG in Munich, Germany.
When there is a change in vehicle owner, the data entered in the electronic Service History can also be viewed

by the new vehicle owner. A BMW Motorrad retailer or specialist workshop can view the data entered in the electronic Service History.

Objection

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

BMW MOTORRAD MOBILITY SERVICES

The BMW Motorrad Mobility Services furnish you and your new BMW motorcycle with extra security by offering a wide array of assistance services in the event of a breakdown (BMW Roadside Assistance, breakdown assistance, vehicle recovery and retrieval, etc.). Contact your authorized BMW Motorrad retailer for additional information on available mobility-maintenance services.

MAINTENANCE WORK

BMW pre-delivery check

The BMW pre-delivery check is carried out by your authorized BMW Motorrad retailer before it turns the motorcycle over to you.

BMW Running-in check

Carrying out the running-in check
311...746 miles (500...1200 km)

BMW MOTORRAD SERVICE

BMW Motorrad Service is carried out once a year. The scope of the services performed may be dependent on the age of the vehicle and the mileage ridden. Your BMW Motorrad retailer confirms that the service has been performed and enters the date for the next service. For riders with a high annual distance traveled, it may be necessary to come in for service before the entered date. In these cases, a corresponding maximum distance covered will also be entered in the confirmation of service. If this distance covered is reached before the next service

appointment, service must be performed sooner.
The service display in the display reminds you of the next service appointment approx. one month or 620 mi (1000 km) before the entered values.

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

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

MAINTENANCE SCHEDULE

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

1 BMW break-in service (including oil change)
2 Standard scope of BMW Motorrad service
3 Engine oil change with filter
4 Oil change in the bevel gears
5 Check valve clearance
6 Replace all spark plugs
7 Replace the air filter element
8 Oil change in the telescopic forks
9 Change brake fluid in the entire system

[a] Annually or every 6000 mi (10000 km) (whichever comes first)
[b] Annually or every 12000 mi (20000 km) (whichever comes first)
[c] At first after one year, then every two years

MAINTENANCE CONFIRMATIONS

BMW Motorrad Service standard scope

The repair procedures belonging to the BMW Motorrad Service standard package are listed below. The actual maintenance work applicable for your vehicle may differ.

–Performing the vehicle test using the BMW Motorrad diagnostic system
–Visual inspection of the clutch system
–Visual inspection of the brake lines, brake hoses, and connections
–Checking the front brake pads and brake discs for wear
–Checking the front wheel brake fluid level
–Checking the rear brake pads and brake disc for wear
–Checking the rear wheel brake fluid level
–Checking steering-head bearing
–Checking coolant level
–Check side stand for ease of movement
–Checking the tire pressure and tread depth
–Checking the lighting and signal system
–Functional check for engine starting suppression
–Final inspection and road safety check
–Set the service date and remaining distance using the BMW Motorrad diagnostic system
–Checking charging state of battery
–Confirming the BMW Motorrad service in the vehicle literature

BMW pre-delivery check
performed

on_____

Stamp, signature

BMW running-in check
performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

Stamp, signature

BMW Motorrad Service
performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

Work performed

	Yes	No
BMW Motorrad Service	☐	☐
Engine oil change with filter	☐	☐
Oil change in rear bevel gears	☐	☐
Checking valve clearance	☐	☐
Replacing all spark plugs	☐	☐
Replacing air cleaner element	☐	☐
Oil change - telescopic fork	☐	☐
Changing brake fluid in entire system	☐	☐

Notes

Stamp, signature

BMW Motorrad Service
performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

Work performed

	Yes	No
BMW Motorrad Service	☐	☐
Engine oil change with filter	☐	☐
Oil change in rear bevel gears	☐	☐
Checking valve clearance	☐	☐
Replacing all spark plugs	☐	☐
Replacing air cleaner element	☐	☐
Oil change - telescopic fork	☐	☐
Changing brake fluid in entire system	☐	☐

Notes

Stamp, signature

BMW Motorrad Service
performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

Work performed

	Yes	No
BMW Motorrad Service	☐	☐
Engine oil change with filter	☐	☐
Oil change in rear bevel gears	☐	☐
Checking valve clearance	☐	☐
Replacing all spark plugs	☐	☐
Replacing air cleaner element	☐	☐
Oil change - telescopic fork	☐	☐
Changing brake fluid in entire system	☐	☐

Notes

Stamp, signature

BMW Motorrad Service
performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

Work performed

	Yes	No
BMW Motorrad Service	☐	☐
Engine oil change with filter	☐	☐
Oil change in rear bevel gears	☐	☐
Checking valve clearance	☐	☐
Replacing all spark plugs	☐	☐
Replacing air cleaner element	☐	☐
Oil change - telescopic fork	☐	☐
Changing brake fluid in entire system	☐	☐

Notes

Stamp, signature

BMW Motorrad Service
performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

Work performed

	Yes	No
BMW Motorrad Service	☐	☐
Engine oil change with filter	☐	☐
Oil change in rear bevel gears	☐	☐
Checking valve clearance	☐	☐
Replacing all spark plugs	☐	☐
Replacing air cleaner element	☐	☐
Oil change - telescopic fork	☐	☐
Changing brake fluid in entire system	☐	☐

Notes

Stamp, signature

BMW Motorrad Service
performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

Work performed

	Yes	No
BMW Motorrad Service	☐	☐
Engine oil change with filter	☐	☐
Oil change in rear bevel gears	☐	☐
Checking valve clearance	☐	☐
Replacing all spark plugs	☐	☐
Replacing air cleaner element	☐	☐
Oil change - telescopic fork	☐	☐
Changing brake fluid in entire system	☐	☐

Notes

Stamp, signature

BMW Motorrad Service
performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

Work performed

	Yes	No
BMW Motorrad Service	☐	☐
Engine oil change with filter	☐	☐
Oil change in rear bevel gears	☐	☐
Checking valve clearance	☐	☐
Replacing all spark plugs	☐	☐
Replacing air cleaner element	☐	☐
Oil change - telescopic fork	☐	☐
Changing brake fluid in entire system	☐	☐

Notes

Stamp, signature

BMW Motorrad Service
performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

Work performed

	Yes	No
BMW Motorrad Service	☐	☐
Engine oil change with filter	☐	☐
Oil change in rear bevel gears	☐	☐
Checking valve clearance	☐	☐
Replacing all spark plugs	☐	☐
Replacing air cleaner element	☐	☐
Oil change - telescopic fork	☐	☐
Changing brake fluid in entire system	☐	☐

Notes

Stamp, signature

BMW Motorrad Service
performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

Work performed

	Yes	No
BMW Motorrad Service	☐	☐
Engine oil change with filter	☐	☐
Oil change in rear bevel gears	☐	☐
Checking valve clearance	☐	☐
Replacing all spark plugs	☐	☐
Replacing air cleaner element	☐	☐
Oil change - telescopic fork	☐	☐
Changing brake fluid in entire system	☐	☐

Notes

Stamp, signature

BMW Motorrad Service
performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

Work performed

	Yes	No
BMW Motorrad Service	☐	☐
Engine oil change with filter	☐	☐
Oil change in rear bevel gears	☐	☐
Checking valve clearance	☐	☐
Replacing all spark plugs	☐	☐
Replacing air cleaner element	☐	☐
Oil change - telescopic fork	☐	☐
Changing brake fluid in entire system	☐	☐

Notes

Stamp, signature

SERVICE CONFIRMATIONS

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

Work performed	at km	Date

Work performed	at km	Date

Declaration of Conformity

Radio equipment electronic immobiliser (EWS4)

For all countries without EU

Technical information
Frequency Band: 134 kHz
(Transponder: TMS37145 / Type DST80, TMS3705 Transponder Base Station IC)
Output Power: 50 dBµV/m

Manufacturer and Address
Manufacturer:
BECOM Electronics GmbH
Address: Technikerstraße 1, A-7442 Hochstraß

Argentina

RAMATEL
H-25246

Australia/New Zealand

R-NZ

Brunei

AITI
TA No: DTA-007061

United Arab Emirates

TRA
REGISTERED No:
ER89926/20

DEALER No:
DA96133I20

Philippiens

NTC
Type Approved
No.: ESD-RCE-2023298

South Africa

TA-2020/6131
ICASA
APPROVED

India

ETA-SD-20200905860

Belarus

TP BY

Indonesia

72790/SDPPI/2021
13349

Dilarang melakukan perubahan Spesifikasi yang dapat Menimbulkan gangguan fisik dan/atau elektromagnetik terhadap lingkungan sekitarnya

Paraquay

CONATEL

NR: 2020-11-I-0834

Singapore

Complies with
IMDA Standards
N3504-20

Taiwan

低功　電波　射性電機管　辦法
第十二條　經型式認證合格之低功率射頻電 機，非經許可，公司、商號或使用者均不得擅 自變更頻率、加大功率或變更原設計之特性及 功能。第十四條　低功率射頻電機之使用不 得影響飛航安全及干擾合法通信；經發現有干 擾現象時，應立即停用，並改善至無干擾時方 得繼續使用。 前項合法通信，指依電信法規定作業之無線電 通信。

Malaysia

MCMC

RFCL/47A/0920/S(20-3358)

Israel

מספר אישור אלחוטי של משרד התקשורת הוא 51-74908
אסור להחליף את האנטנה המקורית של המכשיר ולא
לעשות בו כל שינוי טכני אחר

United States (USA)

Contains FCC ID:
ODE-MREWS5012
FCC § 15.19 Labelling requirements
This device complies with part 15 of the FCC Rules and Industry Canada's licence-exempt RSS standard(s). Operation is subject to the following two conditions:

(1) this device may not cause interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

FCC § 15.21 Information to user

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

RF Exposure Requirements

To comply with FCC RF exposure compliance requirements, the device must be installed to provide a separation distance of at least 20 cm from all persons.

Serbia

P1620118300

Canada

Contains IC:
10430A-MREWS5012
This device complies with part 15 of the FCC Rules and Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:

(1) this device may not cause interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et
(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Vietnam

A1109091120AF04A3

Certifications

BMW Keyless Ride ID Device

USA, Canada:

Product name: BMW Keyless Ride ID
Device FCC ID: YGOHUF5750
IC: 4008C-HUF5750

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

Canada:
Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

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

(1) This device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

Argentina:

CNC COMISIÓN NACIONAL DE COMUNICACIONES

H-17115

Declaration Of Conformity

We declare under our responsibility that the product

BMW Keyless Ride ID Device (Model: HUF5750)

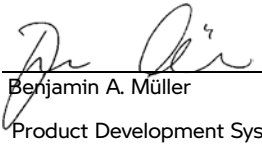
camplies with the appropriate essential requirements of the article 3 of the R&TIE and the other relevant provisions, when used for its intended purpose. Applied Standards:

1. Health and safety requirements contained in article 3 (1) a)
    - EN 60950-1:2006+A11:2009+A1:2010+A12:2011; Information technology equipment-Safety
2. Protection requirements with respect to electromagnetic compatibility article 3 (1) b)
    - EN 301 489-1 (V1 .9.2, 09/2011), Electromagnetic compatibility and radio spectrum matters (ERM); Electromagnetic compatibility (EMC) standard for radio equipment and services;
      Part 1: Common technical requirements
    - EN 301 489-3 (V1.4.1, 08/2002) Electromagnetic compatibility and radio spectrum matters (ERM); Electromagnetic compatibility (EMC) standard for radio equipment and services; Part 3: Specific conditions for short range devices (SRD) operating on frequencies between 9 kHz and 40 GHz
3. Means of the efficient use of the radio frequency spectrum article 3 (2)
    - EN 300 220-1 & -2 (V2.4.1, 05/2012), electromagnetic compatibility and radio spectrum matters (ERM); Short range devices (SRD); Radio equipment tobe used in the 25 MHz to 1000 MHz frequency range with power leveis ranging up to 500 mW;
      Part 1: Technical characteristics and test methods.
      Part 2: Harmonized EN covering essential requirements under article 3.2 ofthe R&TIE directive

The product is labeted with the CE marking:

CE

Velbert, October 15th, 2013



Benjamin A. Müller

Product Development Systems
Car Access and Immobilization -
Electronics Huf Hülsbeck & Fürst
GmbH & Co. KG
Steeger Straße 17, D-42551
Velbert

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 Car Multimedia GmbH
Address: Robert Bosch Str. 200, 31139 Hildesheim, Germany

Turkey
Robert Bosch Car Multimedia 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 Car Multimedia GmbH모델명 : ICC6.5in
기자재명칭 : 특정소출력 무선기기
(무선데이터통신시스템용 무선기기)
제조자 및 제조국가 : Robert Bosch Car Multimedia GmbH / 포르투갈
제조년월 : 제조년월로 표기
이 기기는 업무용 환경에서 사용할 목적으로적합성평가를 받은 기기로서 가정용 환경에서 사용하는 경우 전파간섭의 우려가 있습니다.

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.

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.

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

Original Rider's Manual, printed in Germany.

WARNING

Harmful substances
Operating and preventive maintenance of a passenger vehicle or off-road vehicle can expose you to substances such as exhaust gases, carbon monoxide, phthalates and lead, which are known to the State of California to be carcinogenic as well as detrimental to childbirth and reproduction.
- To minimize exposure, avoid breathing exhaust gases, do not put the engine in Neutral except as necessary, service your vehicle in a well-ventilated area and wear gloves or wash your hands frequently when servicing your vehicle.
- Further information is available at: **www.P65Warnings.ca.gov/passenger_vehicle**

Important data for refueling:

Fuel	
Recommended fuel quality	Super unleaded (max. 15% ethanol, E15) 89 AKI (95 ROZ/RON) 90 AKI
Alternative fuel quality	Regular unleaded (restrictions with regard to power and fuel consumption) (max. 15% ethanol, E15) 87 AKI (91 ROZ/RON) 87 AKI
Usable fuel quantity	Approx. 4.8 gal (Approx. 18 l)
Reserve fuel quantity	Approx. 1.1 gal (Approx. 4 l)
Tire inflation pressures	
Front tire pressure	36.3 psi (2.5 bar), with cold tires, one-up and two-up mode
Rear tire pressure	42.1 psi (2.9 bar), with cold tires, one-up and two-up mode

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

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