BMW
MOTORRAD

RIDER'S MANUAL (US MODEL)

S 1000 XR



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.

01 GENERAL INSTRUCTIONS 2

Quick & easy reference 4
Abbreviations and symbols 4
Equipment 5
Technical data 5
Timeliness of the status of this manual 6
Additional sources of information 6
Certificates and operating permits 6
Data memory 6

02 OVERVIEWS 12

Overall view, left side 14
Overall view, right side 15
Underneath the seat 16
Multifunction switch, left 17
Multifunction switch, right 18
Instrument cluster 19

03 DISPLAYS 20

Indicator and warning lights 22
TFT display in Pure Ride view 23
TFT display in the View menu 24
TFT display in Sport view 25
TFT display in Sport 2 view 26
TFT display in Sport 3 view 27
Indicator lights 28

04 OPERATION 54

Ignition switch/steering lock 56
Emergency-off switch 57
Ignition with Keyless Ride 58
Lighting 62
Dynamic Traction Control (DTC) 65
Electronic chassis and suspension adjustment (D-ESA) 66
Riding mode 69
PRO riding mode 70
Cruise control 71
Laptimer 74
Hill Start Control 75
Shiftpoint light 77
Anti-theft alarm system (DWA) 78
Tire pressure control (TPC) 80
Heated grips 80
Seat 81
Storage compartment 82

05 TFT DISPLAY 84

General notes 86
Principle 87
Pure Ride view 93
General settings 94
Bluetooth 95
My Vehicle 99
Navigation 102
Media 104
Phone 104
Displaying software version 105
Displaying license information 105

06 SETTING 106

Mirrors 108
Headlight 108
Windshield 109
Brake 109
Clutch 110
Footrest system 111

07 RIDING 114

Safety instructions 116
Regular check 118
Starting 119
Breaking in 123
Shifting 124
Shiftpoint light 125
Brakes 125
Parking the motorcycle 127
Refueling 128
Fastening motorcycle in place for transportation 133

08 TECHNOLOGY IN DETAIL 136

General notes 138
Anti-lock braking system (ABS) 138
Dynamic traction control (DTC) 142
Dynamic engine brake control 143
Dynamic ESA 144
Riding mode 144
Dynamic Brake Control 147
Tire pressure control (RDC) 148
Gear Shift Assistant 149
Hill Start Control (Hill Start Control) 150
Adaptive headlight 152

09 MAINTENANCE 154

General notes 156
Onboard vehicle tool kit 157
Front wheel stand 157
Rear-wheel stand 158
Engine oil 159
Brake system 160
Clutch 165
Coolant 166
Tires 167

Rims 168
Wheels 168
Drive chain 177
Light source 180
Jump-starting 182
Battery 183
Fuses 186
Diagnostic socket 188

10 ACCESSORIES 190

General notes 192
Socket 192
USB charging socket 193
Cases 194
Topcase 195
Navigation system 198

11 CARE 204

Care products 206
Washing the vehicle 206
Cleaning sensitive motorcycle parts 207
Care of paintwork 208
Paint preservation 209
Storing the motorcycle 209
Putting the motorcycle into operation 209

12 TECHNICAL DATA 210

Troubleshooting chart 212
Screw connections 214
Fuel 216
Engine oil 216
Coolant 217
Engine 217
Clutch 218
Transmission 218
Rear-wheel drive 218
Frame 219
Chassis 219
Brakes 220
Wheels and tires 220
Electrical system 222
Anti-theft alarm system 223
Dimensions 223
Weights 225
Performance data 226

13 SERVICE 228

Reporting safety defects 230
BMW Motorrad Service 231
BMW Motorrad Service History 231
BMW Motorrad Mobility Services 232
Maintenance work 232
BMW Motorrad Service 232
Maintenance schedule 234
Maintenance confirmations 235
Service confirmations 247

APPENDIX 250

Certificate for electronic immobilizer 251
Certificate for Keyless Ride 254
Certificate for tire pressure control 258
Certificate for TFT instrument cluster 259

INDEX 262

GENERAL INSTRUCTIONS

01

QUICK & EASY REFERENCE 4
ABBREVIATIONS AND SYMBOLS 4
EQUIPMENT 5
TECHNICAL DATA 5
TIMELINESS OF THE STATUS OF THIS MANUAL 6
ADDITIONAL SOURCES OF INFORMATION 6
CERTIFICATES AND OPERATING PERMITS 6
DATA MEMORY 6

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

EQUIPMENT

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

TECHNICAL DATA

All dimensions, weights and performance data contained in these operating instructions refer to the German Institute for Standardization i.e. DIN (Deutsches Institut für Normung e. V.) and comply with their tolerance specifications. The technical data and specifications in these operating instructions serve as points of reference. The vehicle-specific data may vary, for instance due to the selected optional equipment, national-market version or country-specific measuring procedures. Detailed values can be obtained from the registration documents or requested

from your BMW Motorrad retailer or other qualified service partner or specialist workshop. The information on the vehicle documents always takes precedence over the information in these operating instructions.

TIMELINESS OF THE STATUS OF THIS MANUAL

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

ADDITIONAL SOURCES OF INFORMATION

Authorized BMW Motorrad retailer

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

Internet

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

CERTIFICATES AND OPERATING PERMITS

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

DATA MEMORY

General information

Control units are installed in the vehicle. Control units process data received from vehicle sensors, self-generated data or data exchanged between control units, for example. Some control units are required for safe vehicle operation or provide riding assistance, such as rider assistance systems. Control units also make comfort and infotainment functions possible.

Information about the stored or exchanged data can be ob-

tained from the vehicle manufacturer, such as in the form of a separate booklet.

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

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

–The vehicle manufacturer
–Qualified service partners
–Specialist workshops
–Service providers

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

8 GENERAL INSTRUCTIONS

The vehicle data is read out via the vehicle's legally mandated socket for onboard diagnosis (OBD).

Legal requirements for the disclosure of data

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

Operating data in the vehicle

Control units process data so that the vehicle can run.
Examples of this include:

– Status messages from the vehicle and its individual components, such as wheel RPM, wheel centrifugal velocity and deceleration
– Ambient conditions, such as temperature

The data is processed only in the vehicle itself and is usually temporary. The data is not stored beyond the period in which the vehicle is operating.
Electronic components such as control units contain components for storing technical information. This may be information about the vehicle's condition, component load, events or faults stored temporarily or permanently.
This information generally documents the condition of a component, module, system or the surrounding area; for example:

– Operating conditions of system components, such as fill levels and tire pressure
– Malfunctions and faults in key system components, such as lights and brakes
– Vehicle responses in specific riding situations, such as the activation of riding stability control systems
– Information about events causing damage to the vehicle

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

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

Data input and data transfer in the vehicle

General information

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

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

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

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

Incorporating mobile end devices

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

This enables audio and visual output from mobile end devices through the multimedia system. At the same time, certain information is transmitted to the mobile end device. This includes for instance position data and other general vehicle information, depending on the type of incorporation, and makes it possible to optimize the use of selected apps, such as those for navigation or audio playback.

The way the data is processed further is determined by the provider of the particular app used. The range of possible settings depends on the particular app and the operating system of the mobile end device.

Services

General information

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

Vehicle manufacturer services

In the case of the vehicle manufacturer's online services, the particular functions are described at the appropriate location, such as in the rider's manual or on manufacturer's

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

Services of other providers

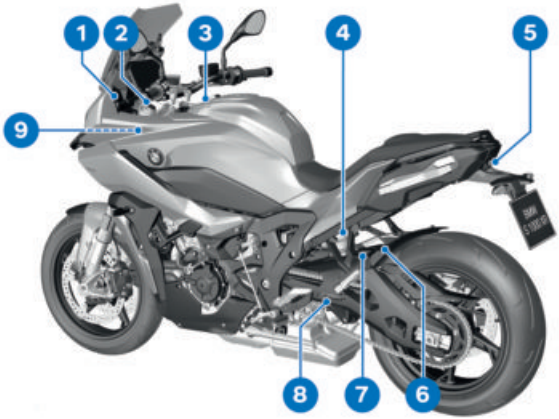
When using the online services of other providers, these services are subject to the responsibility and the term of data protection and use of the respective provider. The vehicle manufacturer has no control over the content exchanged via these services. Information about the type, scope and purpose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

OVERVIEWS

02

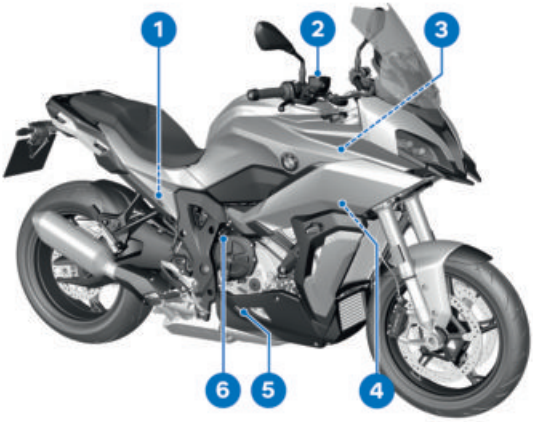
OVERALL VIEW, LEFT SIDE 14
OVERALL VIEW, RIGHT SIDE 15
UNDERNEATH THE SEAT 16
MULTIFUNCTION SWITCH, LEFT 17
MULTIFUNCTION SWITCH, RIGHT 18
INSTRUMENT CLUSTER 19

OVERALL VIEW, LEFT SIDE



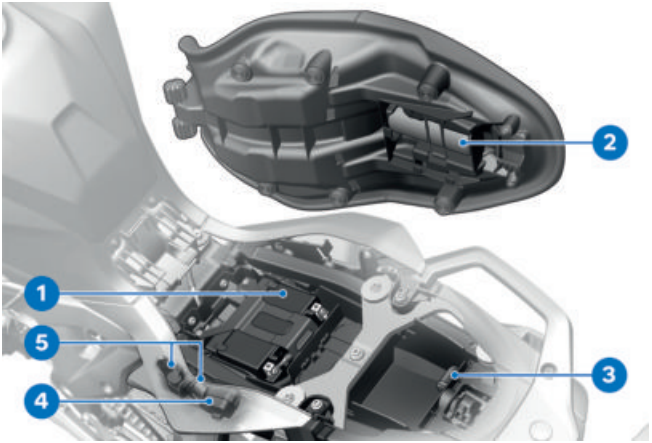
1 Socket (➠ 192)
2 Dynamic ESA spring strut, front (➠ 66)
3 Storage compartment (➠ 82)
4 Dynamic ESA spring strut, rear (➠ 66)
5 Seat lock (➠ 81)
6 Payload table
7 Tire pressure table
8 Note on chain sag
9 Nameplate (on the steering-head bearing)

OVERALL VIEW, RIGHT SIDE



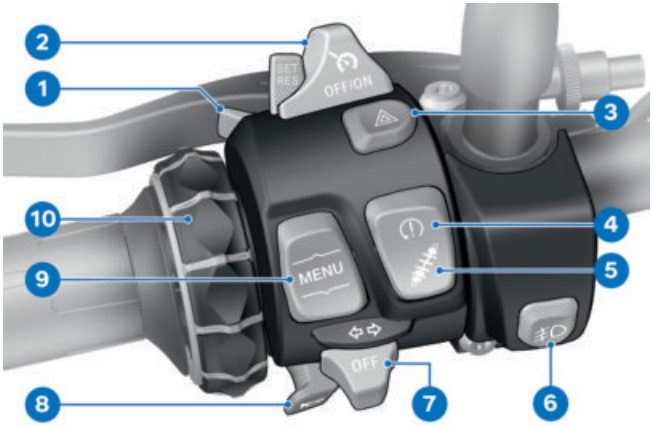
1 Brake fluid reservoir for rear wheel brake (➠ 164)
2 Brake fluid reservoir for front wheel brake (➠ 163)
3 Vehicle identification number (on the steering-head bearing)
4 Coolant expansion tank (➠ 166)
5 Engine oil indicator (➠ 159)
6 Oil filler opening (➠ 160)

UNDERNEATH THE SEAT



1 Battery (➠ 183)
2 Onboard vehicle tool kit (➠ 157)
3 USB charging socket (➠ 193)
4 Diagnostic socket (➠ 188)
5 Fuses (➠ 186)

MULTIFUNCTION SWITCH, LEFT



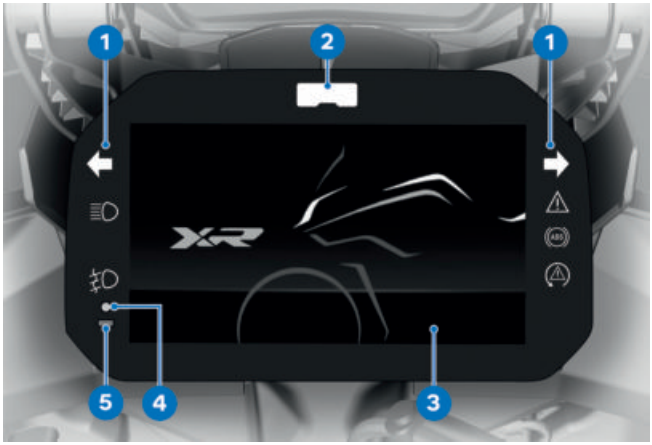
1 High beams and headlight flasher (➠ 63)
2 Cruise control (➠ 72)
3 Hazard warning lights (➠ 64)
4 Dynamic Traction Control (DTC) (➠ 65)
5 Dynamic ESA adjustment options (➠ 66)
6 Auxiliary headlights (➠ 63)
7 Turn signals (➠ 64)
8 Horn
9 Rocker button MENU (➠ 87)
10 Multi-Controller Operating elements (➠ 87)

MULTIFUNCTION SWITCH, RIGHT



1 Heated grips (➠ 80)
2 Riding mode (➠ 69)
3 Emergency-off switch (➠ 57)
4 Starter button (➠ 119)

INSTRUMENT CLUSTER



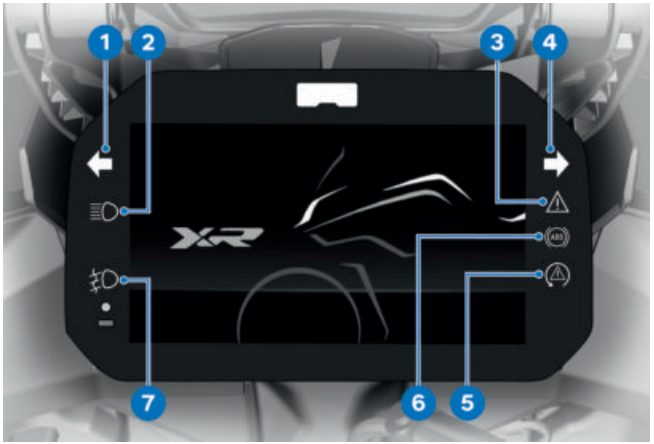
1 Indicator and warning lights (➠ 22)
2 Shiftpoint light (➠ 125)
3 TFT display (➠ 23)
4 DWA LED (➠ 79)
5 Photodiode (for adjusting brightness of instrument lighting)

DISPLAYS

03

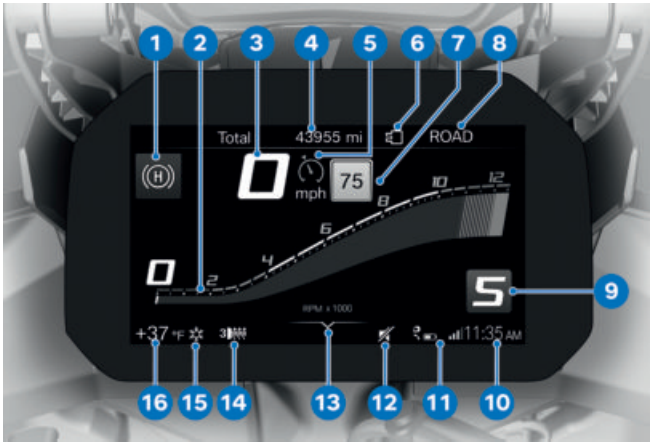
INDICATOR AND WARNING LIGHTS 22
TFT DISPLAY IN PURE RIDE VIEW 23
TFT DISPLAY IN THE VIEW MENU 24
TFT DISPLAY IN SPORT VIEW 25
TFT DISPLAY IN SPORT 2 VIEW 26
TFT display in Sport 3 view 27
INDICATOR LIGHTS 28

INDICATOR AND WARNING LIGHTS



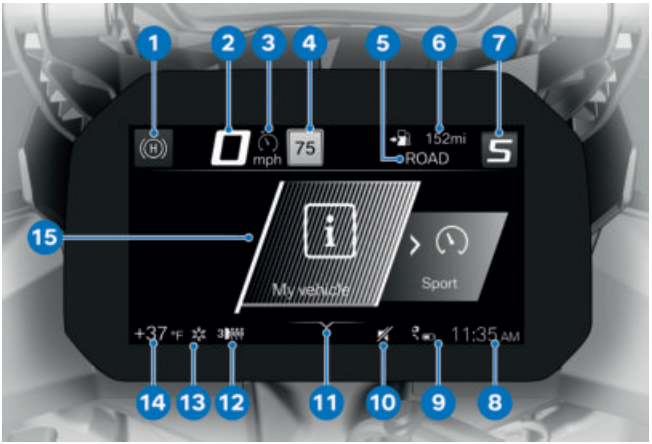
1 Turn signal, left (➠ 64)
2 High beams (➠ 63)
3 General warning light (➠ 28)
4 Turn signal, right (➠ 64)
5 DTC (➠ 48)
6 ABS
7 Auxiliary headlights (➠ 63)

TFT DISPLAY IN PURE RIDE VIEW



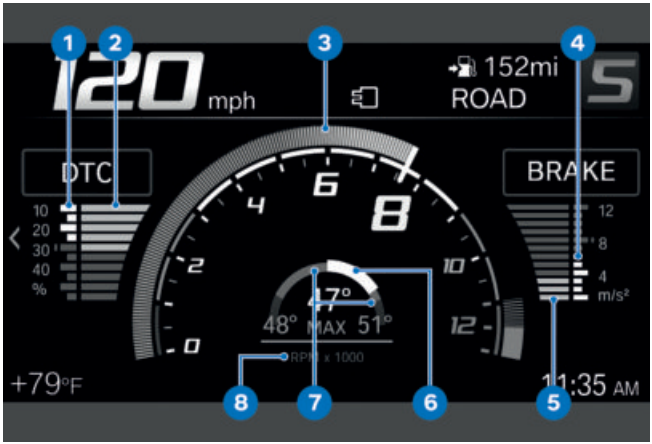
1 Hill Start Control (➠ 51)
2 Tachometer (➠ 93)
3 Speedometer
4 Rider info. status line (➠ 91)
5 Cruise control (➠ 72)
6 DYNAMIC PRO riding mode (➠ 70)
7 Speed Limit Info (➠ 93)
8 Riding mode (➠ 69)
9 Gear display, "N" (Neutral) is displayed in the neutral position.
10 Clock (➠ 94)
11 Connection status (➠ 96)
12 Muting (➠ 94)
13 Operating assistance
14 Heated grip settings (➠ 80)
15 Outside temperature warning (➠ 35)
16 Outside temperature

TFT DISPLAY IN THE VIEW MENU



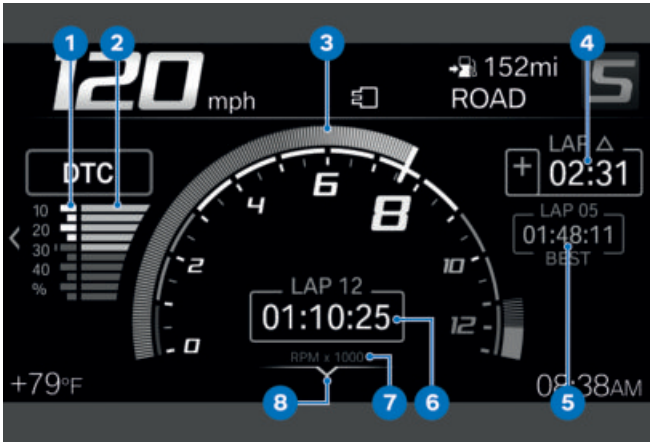
1 Hill Start Control (➠ 51)
2 Speedometer
3 Cruise control (➠ 72)
4 Speed Limit Info (➠ 93)
5 Riding mode (➠ 69)
6 Rider info. status line (➠ 91)
7 Gear display, "N" (Neutral) is displayed in the neutral position.
8 Clock (➠ 94)
9 Connection status (➠ 96)
10 Muting (➠ 94)
11 Operating assistance
12 Heated grip settings (➠ 80)
13 Outside temperature warning (➠ 35)
14 Outside temperature
15 Menu area

TFT DISPLAY IN SPORT VIEW



1 Maximum DTC torque reduction
2 Current DTC torque reduction
3 Tachometer
4 Maximum braking deceleration
5 Current braking deceleration
6 Current angle of inclination
7 Maximum angle of inclination
8 Unit for tachometer: 1000 revolutions per minute

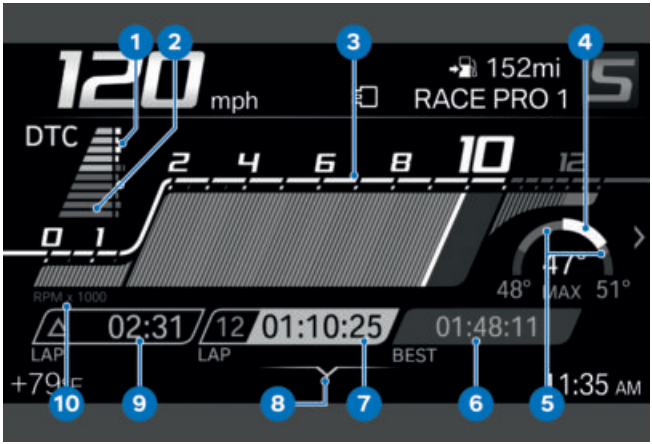
TFT DISPLAY IN SPORT 2 VIEW



–with M package[OE]

1 Maximum DTC torque reduction
2 Current DTC torque reduction
3 Tachometer
4 Difference between the last lap time and the reference time, or difference between the current lap time and the reference time
5 Reference time: the fastest lap from the laps currently saved, or the fastest lap ever saved
6 Current lap time (➠ 74)
7 Unit for tachometer: 1000 revolutions per minute
8 Operating assistance

TFT display in Sport 3 view



–with M package OE

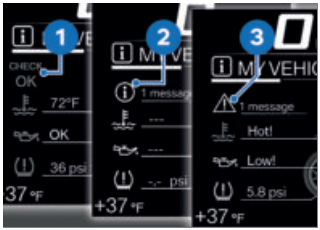
1 Maximum DTC torque reduction
2 Current DTC torque reduction
3 Tachometer
4 Current angle of inclination
5 Maximum angle of inclination
6 Reference time: the fastest lap from the laps currently saved, or the fastest lap ever saved (➠ ??)
7 Current lap time
8 Operating assistance
9 Difference between the last lap time and the reference time, or difference between the current lap time and the reference time
10 Unit for displaying RPM: 1000 RPM

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.

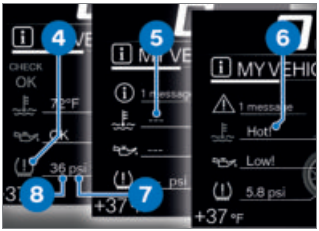
The general warning light lights up for whichever warning is most urgent at the current time.
You will find an overview of the potential warnings on the following pages.



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

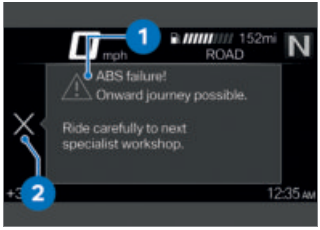
The icons **4** are displayed differently. Different colors are used depending on the assessment of value. Instead of numerical values **8** with units **7**, texts **6** are also displayed:

Color of the icon

–Green: (`OK`) Current value is optimal.
–Blue: (`Cold!`) Current temperature is too 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 menu `My vehicle` (➠ 89). The message can be called up again as long as the error persists.

Overview of warning indicators

Indicator and warning lights	Display text	Meaning
	 appears on the display.	Outside temperature warning (➠ 35)
 lights up yellow.	 `Remote key not in range.`	Radio-operated key outside reception range (➠ 35)
lights up yellow.	`Keyless Ride failure!`	Keyless Ride failure (➠ 36)
 lights up yellow.	 `Remote key battery at 50%.`	Replacing the battery of the radio-operated key (➠ 36)
	 `Remote key battery low.`	
	 is displayed in yellow.	Voltage of the vehicle electrical system too low (➠ 36)
	 `Vehicle voltage low.`	
lights up yellow.	 is displayed in yellow.	Voltage of the vehicle electrical system is critical (➠ 37)
	 `Vehicle voltage critical!`	
 flashes yellow.	 is displayed in yellow.	Charging voltage critical (➠ 37)
	 `Battery critically low!`	
 lights up yellow.	 The faulty light source is displayed.	Light source defect (➠ 38)
 flashes yellow.	 The faulty light source is displayed.	
 lights up yellow.	 `Light control failure!`	Light control unit failed (➠ 39)

Indicator and warning lights	Display text	Meaning
	Anti-theft alarm batt. capacity low.	Anti-theft alarm battery low charge (➠ 39)
	Anti-theft alarm battery discharged.	Anti-theft alarm system battery empty (➠ 39)
	Anti-theft alarm system failure.	DWA failure (➠ 40)
 lights up yellow.	Coolant temperature too high!	Coolant temperature too high (➠ 40)
	Engine!	Drive malfunction (➠ 41)
 lights up yellow.	No communication with engine control.	Engine control failure (➠ 41)
 lights up.		
 lights up yellow.	Fault in the engine control.	Engine in emergency operation mode (➠ 41)
 flashes red.	Serious fault in the engine control.	Serious fault in the engine control (➠ 42)
 lights up yellow.	 is displayed in yellow.	Tire pressure is at limit of approved range (➠ 43)
	Tire pressure not at setpoint.	

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

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

Indicator and warning lights	Display text	Meaning
	 `Low fuel.`	Fuel has reached reserve volume (➠ 51)
	 is displayed in green.	Hill Start Control active (➠ 51)
	 flashes yellow.	Hill Start Control automatically deactivated (➠ 51)
	 is displayed.	Hill Start Control cannot be activated (➠ 51)
	 Gear indicator flashes.	Gear not taught in (➠ 52)
 flashes in green.		Hazard warning flasher switched on (➠ 52)
 flashes in green.		
	 is displayed in white.	Service due (➠ 53)
	`Service due!`	
 lights up yellow.	 is displayed in yellow.	Service appointment missed (➠ 53)
	`Service overdue!`	

Outside temperature
The outside temperature is displayed in the status line of the TFT display.
Engine heat can lead to spurious readings of 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 value 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

appears on the display.

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 riding.

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


lights up yellow.


`Remote key not in range. It is not possible to turn on the ignition again.`
Possible cause:
The communication between the radio-operated key and the engine electronics is faulty.
- Check the battery in the radio-operated key.

–with Keyless Ride OE
- Replacing the battery of the radio-operated key (➠ 61).
- Use the spare key for further travel.

–with Keyless Ride OE
- If radio-operated key is lost (➠ 60).
- If the Check Control dialog appears while riding, remain

calm. You can continue riding, the engine will not turn off.
- Have any faulty radio-operated keys replaced by a BMW Motorrad partner.

Keyless Ride failure
–with Keyless Ride OE


lights up yellow.


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

Possible cause:
The Keyless Ride control unit has diagnosed a communication fault.
- Do not shut off the engine. Visit a specialist workshop immediately if possible, ideally an authorized BMW Motorrad retailer.

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

Replacing the battery of the radio-operated key


lights up yellow.


`Remote key battery at 50%. No functional limitation.`

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

Possible cause:
- The battery for the radio-operated key is no longer charged to full capacity. Operation of the radio-operated key is only ensured for a limited time.

–with Keyless Ride OE
- Replacing the battery of the radio-operated key (➠ 61).

Voltage of the vehicle electrical system 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.

Voltage of the vehicle electrical system is 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 is faulty, battery is faulty or fuse is blown.
- Have the malfunction corrected as soon as possible at a specialist workshop, 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!`

 `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.`

 flashes yellow.

 The faulty light source is displayed:

 `Active headlamp 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 light sources as quickly as possible. For details please contact a specialist service facility, preferably an authorized BMW Motorrad Retailer.

Possible cause:
One or more light sources are defective.
- Identify defective light sources by visually inspecting them.
- Have the LED light source replaced in full; for details please contact a specialist workshop, preferably an au-

thorized BMW Motorrad retailer.

Possible cause:
Plug connection disconnected.
- Identify the disconnected plug connection.
- Connect the disconnected plug connection.

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.

The vehicle lighting has failed partially or completely.
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 a specialist workshop, preferably an authorized BMW Motorrad retailer.

Anti-theft alarm system battery empty
–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 battery is disconnected.
- Contact a specialist workshop, preferably an authorized BMW Motorrad retailer.

DWA failure

–with anti-theft alarm system (DWA) OE



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

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

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

Coolant temperature too high



lights up yellow.



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

ATTENTION

Riding with overheated engine
Engine damage
- Be sure to observe the measures listed below.

Possible cause:
Coolant level is too low.
- Checking the coolant level (➠ 166).

If coolant level is too low:
- Allow the engine to cool down.
- Checking the coolant level (➠ 166).
- Have the cooling system checked at a specialist workshop, preferably by an authorized BMW Motorrad retailer.

Possible cause:
The coolant temperature is too high.
- If possible, continue riding in the partial load range to cool down the engine.
- Should the coolant temperature frequently be too high, have the fault rectified as quickly 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 that affects pollutant emission and/or performance.
- Have the malfunction corrected at a specialist workshop, preferably an authorized BMW Motorrad retailer.

» You may continue driving 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. In exceptional cases, the engine stops and can no longer be started. Otherwise, the engine runs in emergency operation.
- Continued riding is possible, however the accustomed engine output and speed range may not be available.
- Have the malfunction corrected as soon as possible

at a specialist workshop, preferably an authorized BMW Motorrad retailer.

Serious fault in the engine control


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.

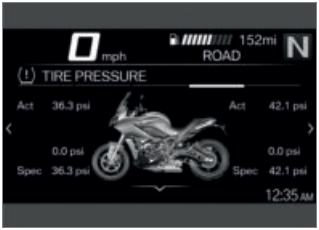
Possible cause:
The engine control unit has diagnosed a fault, which can lead to a severe secondary fault.
The engine is in emergency operation.

- Continued riding is possible, however it is not recommended.
- Avoid high load and engine speed ranges if possible.
- Have the malfunction corrected as soon as possible at a specialist workshop, preferably an authorized BMW Motorrad retailer.

Tire pressure

–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 the ignition is turned on, 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 transmits its signal to the vehicle only once the minimum speed has been exceeded.)
 The tire pressures are shown in the TFT display with temperature compensation and are always based on the following tire air temperature:
68 °F (20 °C)

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

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

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

For more information about the BMW Motorrad tire pressure control (RDC), see the "Technology in detail" chapter (➠ 148).

Tire pressure is at limit of approved range

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

» Temperature compensation (➠ 148)

» Tire pressure adjustment (➠ 149)
» The target tire pressures can be found in the following locations:
– On the back cover of the operating instructions
– Instrument cluster in the TIRE PRESSURE view
– Sign on the rear wheel swinging arm

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 tire for damage and drivability.
If the tire is still ridable:
• Correct the tire pressure at the next opportunity.
• Before adjusting the tire pressure, check the information on temperature compensation and tire pressure adjustment in the Technology in detail chapter:
» Temperature compensation (➠ 148)
» Tire pressure adjustment (➠ 149)
» The target tire pressures can be found in the following locations:
– On the back cover of the operating instructions
– Instrument cluster in the TIRE PRESSURE view
– Sign on the rear wheel swinging arm

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

If you are unsure about the tire's drivability:

- Do not continue riding.
- Contact roadside service.

Transmission fault

–with tire pressure monitor (TPM) OE



"– – –"

Possible cause:

The vehicle has not reached the minimum speed (➠ 148).

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

- Observe the RDC display at higher speed.



This is a permanent fault only when the general warning light also lights up.

In this case:

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

Possible cause:

The radio link to the RDC sensors is disrupted. There are radio systems in the surrounding area that are causing interference to the connection between the RDC control unit and the sensors.

- Observe the RDC display in different surroundings.



This is a permanent fault only when the general warning light also lights up.

In this case:

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

Sensor faulty or system fault

–with tire pressure monitor (TPM) OE



lights up yellow.



"– – –"

Possible cause:

Wheels without installed RDC sensors are mounted.

- Retrofit wheel set with RDC sensors.

Possible cause:
1 or 2 RDC sensors have failed or there is a system fault.
- Have the malfunction corrected at a specialist workshop, 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 RDC is only ensured for a limited time.
- Contact a specialist workshop, preferably an authorized BMW Motorrad retailer.

Fall sensor defective


Fall sensor faulty. Have checked by a specialist workshop.

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

Motorcycle has fallen over


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

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

Side stand monitoring faulty

 lights up yellow.

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

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

ABS self-diagnosis not completed

 flashes.

Possible cause:

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

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

ABS fault

 lights up yellow.

 lights up.

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

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

- You may continue riding. Take note of additional information on special situations that can lead to an ABS fault memory entry (➠ 140).
- Have the malfunction corrected as soon as possible at a 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.

- You may continue riding. Take note of additional information on special situations that can lead to an ABS fault memory entry (➠ 140).
- Have the malfunction corrected as soon as possible at a specialist workshop, preferably an authorized BMW Motorrad retailer.

ABS Pro failure


lights up yellow.


lights up.


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

Possible cause:
The 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 which can lead to an ABS Pro fault memory entry (➠ 140).
- Have the malfunction corrected as soon as possible at a specialist workshop, preferably an authorized BMW Motorrad retailer.

DTC intervention


flashes rapidly.

The DTC has detected impending instability at the rear wheel and responded by reducing the torque. The indicator light

flashes longer than the DTC intervention lasts. This feature continues to furnish the rider with visual feedback confirming that the system has initiated active closed-loop intervention even after the critical situation has passed.

DTC self-diagnosis not completed

 flashes slowly.

Possible cause:

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

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

DTC switched off

 lights up.

 `Off!`

 `Traction control deactivated.`

Possible cause:
The DTC system has been switched off by the rider.
- Turning on DTC (➠ 66).

DTC fault

 lights up yellow.

 lights up.

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

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

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.
- Note that the DTC function and the dynamic engine brake control are not available.

- You may continue riding. Observe additional information on situations that can lead to a DTC fault (➠ 142).
- Have the malfunction corrected as soon as possible at a specialist workshop, preferably an authorized BMW Motorrad retailer.

Limited DTC availability

 lights up yellow.

 lights up.

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

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

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.
- Note that the DTC function and the dynamic engine brake control are only available with limitations.
- You may continue riding. Observe additional information on situations that can lead to a DTC fault (➠ 142).
- Have the malfunction corrected as soon as possible at a specialist workshop, preferably an authorized BMW Motorrad retailer.

D-ESA fault

 lights up yellow.

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

Possible cause:
The Dynamic ESA control unit has detected an error. 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 ride, particularly on poor roads. Alternatively, the spring preload may be set incorrectly.

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

Fuel has reached 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.

Ride to the nearest gas station.
Possible cause:
At the most, the fuel tank still contains the fuel reserve.

Fuel reserve
Approx. 1.1 gal (Approx. 4 l)

- Refueling procedure (➠ 129).

Hill Start Control active


is displayed in green.

Possible cause:
The Hill Start Control (➠ 150) was activated by the rider.
- Switch off Hill Start Control.
- Operating the Hill Start Control Pro (➠ 76).

Hill Start Control automatically deactivated


flashes yellow.

Possible cause:
Hill Start Control was switched off 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 Pro (➠ 76).

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 taught in



Gear indicator flashes.

The Gear Shift Assistant Pro has no function.
Possible cause:
The transmission sensor has not been completely taught in.

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

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

– Once the transmission sensor has been fully taught in, the Gear Shift Assistant Pro functions as described (➠ 149).

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

Hazard warning flasher switched on


flashes in green.


flashes in green.

Possible cause:
The hazard warning flasher was switched on by the rider.

- Operating the hazard warning lights (➠ 64).

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 mileage 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 appointment 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 56
EMERGENCY-OFF SWITCH 57
IGNITION WITH KEYLESS RIDE 58
LIGHTING 62
DYNAMIC TRACTION CONTROL (DTC) 65
ELECTRONIC CHASSIS AND SUSPENSION ADJUSTMENT (D-ESA) 66
RIDING MODE 69
PRO RIDING MODE 70
CRUISE CONTROL 71
LAPTIMER 74
HILL START CONTROL 75
SHIFTPOINT LIGHT 77
ANTI-THEFT ALARM SYSTEM (DWA) 78
TIRE PRESSURE CONTROL (TPC) 80
HEATED GRIPS 80
SEAT 81
STORAGE COMPARTMENT 82

IGNITION SWITCH/STEERING LOCK

Ignition key

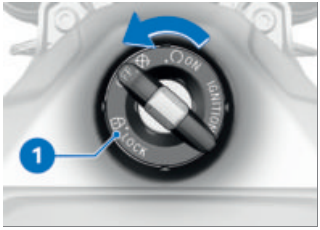
You are provided with 2 ignition keys.

Should you lose your keys, refer to the notes regarding the electronic immobilizer (EWS) (➠ 57).

A single key fits the ignition switch / steering lock, the fuel filler cap and the seat lock.

Locking the steering lock

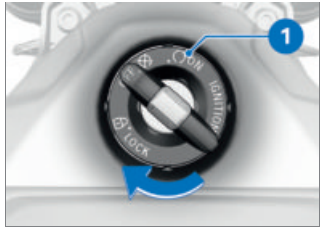
- Turn handlebars to left.



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

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

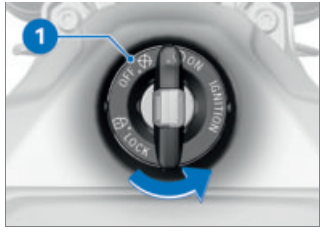
Turning on the ignition



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

» Parking lights and all function circuits are turned on.
» Engine can be started.
» Pre-Ride-Check is carried out. (➠ 120)
» ABS self-diagnosis is performed. (➠ 121)
» DTC self-diagnosis is performed. (➠ 122)

Turning off the ignition



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

» Lights are turned off.
» Steering lock is not locked.
» The ignition key can be removed.

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

An additional ignition key 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 vehicle 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.
Spare keys are available only through an authorized BMW Motorrad retailer. The ignition keys are part of an integrated safety system, so the retailer is under obligation to check the legitimacy of all applications for spare keys.

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

IGNITION WITH KEYLESS RIDE

–with Keyless Ride[OE]

Radio-operated key

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) (➠ 57).
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
–with Keyless Ride[OE]
Approx. 3.3 ft (Approx. 1 m)◁

Locking the steering lock

Requirement

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



- 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 reception range.



- 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.
» Pre-Ride-Check is carried out. (➠ 120)
» ABS self-diagnosis is performed. (➠ 121)
» DTC self-diagnosis is performed. (➠ 122)

Steering lock is unlocked:
- Briefly press button **1**.
» Parking lights and all function circuits are turned on.
» Pre-Ride-Check is carried out. (➠ 120)
» ABS self-diagnosis is performed. (➠ 121)
» DTC self-diagnosis is performed. (➠ 122)

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



- 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 (➠ 58).

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. When having a key disabled you should also bring all of the motorcycle's remaining keys with you.
The engine can no longer be started using a disabled radio-operated key; however, a disabled radio-operated key can be enabled again.
Spare keys are available only through 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.



- Hold spare key **1** against the fuel tank so that the spare key is positioned above the 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 (➠ 119).

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.

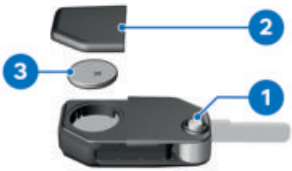
DANGER

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

ATTENTION

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

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

Battery type
For Keyless Ride radio-operated key
CR 2032

- Install battery cover **2**.
» Red LED in instrument cluster blinks.
» The radio-operated key is working again.

LIGHTING

Switch on low-beam headlight
- Turn on the ignition.
- Start engine.



- Alternatively: with the ignition turned on, pull the switch **1**.

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.

High beams and headlight flasher

- Turning on the ignition (➠ 56).



- 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 (➠ 56).



- 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 additional headlight OE

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 (➠ 119).



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

lights up.

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

Operating the hazard warning lights

- Turning on the ignition (➠ 56).

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



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

» Ignition can be turned off.

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

Operating turn signals

- Turning on the ignition (➠ 56).



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

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

Comfort turn signals



If button **1** has been pushed to the right or left, the turn signals will automatically switch 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 signal flashes five times.

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

DYNAMIC TRACTION CONTROL (DTC)

Turning off DTC

- Turn on the ignition.

The Dynamic Traction Control (DTC) can also be deactivated while riding.



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

The new DTC system status `OFF!` is displayed.

lights up.

Possible DTC system status `OFF!` is displayed.

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

The new DTC system status `OFF!` is displayed.

continues to light up.

» The DTC function is switched off.

Turning on DTC



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

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

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

Possible DTC system status ON is displayed.

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

remains off or continues to flash.

The new DTC system status ON is displayed for a short time.

» The DTC function is switched on.

- As an alternative, the ignition can also be switched off and then on again in the RAIN, ROAD and DYNAMIC riding modes. In the DYNAMIC PRO riding mode, the most recently selected DTC status is retained after turning on the ignition again.

If the DTC indicator light lights up after switching the ignition off and on and then continuing to ride at the following minimum speed, a DTC fault has occurred.

min 3 mph (min 5 km/h)

- More detailed information on the Dynamic Traction Control can be found in the "Technology in detail" chapter (➠ 142).

ELECTRONIC CHASSIS AND SUSPENSION ADJUSTMENT (D-ESA)

Dynamic ESA adjustment options

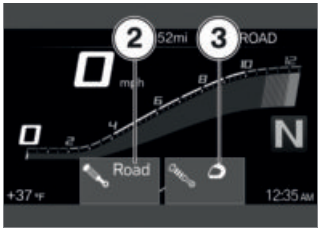
The electronic Dynamic ESA chassis and suspension adjustment can adapt your motorcycle to the load.
For more information on Dynamic ESA, see Chapter "Technology in detail" (➠ 144).

Displaying chassis and suspension adjustment

- Turning on the ignition (➠ 56).

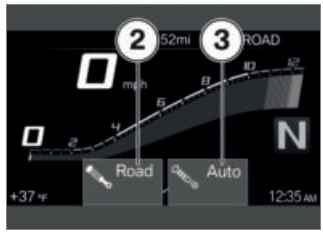


- Press button **1** briefly to display current setting.



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

–with Dynamic ESA Pro OE

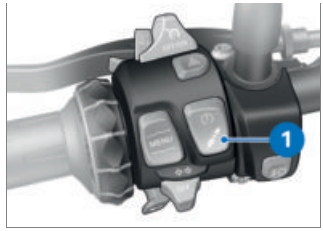


Immediately after the button **1** is pressed, the chassis and suspension adjustment options for damping **2** and spring preload **3** are displayed.◁

» The display automatically disappears again after a short time.

Adjusting damping

- Turning on the ignition (➠ 56).



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

» After pressing button **1** once more, the following message appears: D–ESA Pro

`required. Damping not changed.`

–with Dynamic ESA Pro OE

To adjust the damping rate:

- Repeatedly press button **1** briefly until the desired setting is displayed.

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



The selection arrow **4** is displayed and 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

» If button **1** is not pressed for a longer time, the damping is adjusted as indicated.◁

Adjusting spring preload



To adjust the spring preload:

- Starting the engine (➠ 119).
- Repeatedly press and hold button **1** until the desired setting is displayed.

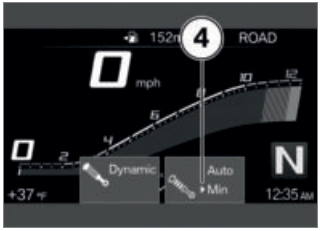
The spring preload cannot be adjusted while the motorcycle is being ridden.

The following message is output if no adjustments to the setting are possible: `Load adjust. only avail. when halted.`



The selection arrow **4** is displayed and goes away after the changeover of the status.

–with Dynamic ESA Pro OE



The selection arrow **4** is displayed and goes away after the changeover of the status.◁

» The following settings are available:

One-up

One-up with luggage

Two-up mode (with luggage)

–with Dynamic ESA Pro OE

–`Min`: minimum spring preload◁

–with Dynamic ESA Pro OE

–`Auto`: automatic spring preload setting◁

» If button **1** is not pressed for a longer time, the spring preload is adjusted as indicated.

- At very low temperatures, unload the motorcycle before increasing the spring preload, and have the passenger dismount if necessary.

–with Dynamic ESA Pro OE

» 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:

–RAIN: Riding on rain-slicked roads.

–ROAD: Riding on dry roads.

–DYNAMIC: Dynamic riding on dry roads.

–DYNAMIC PRO: dynamic riding taking into account individual settings made by the rider.

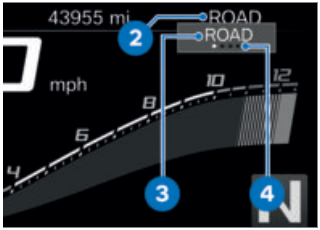
The optimum interaction between engine characteristics, ABS control, and DTC control is provided for each of these scenarios.

Select riding mode

- Turning on the ignition (➠ 56).



- 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.

Depending on the riding mode or its configuration, the intervention of electronic stability control systems can be restricted.
Possible restrictions are displayed as a pop-up message, e.g. `Caution! ABS & DTC setting.`.
You can find more detailed information regarding electronic stability control systems such as ABS and DTC in the "Technology in detail" chapter.

- 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.

PRO RIDING MODE

Adjustment options

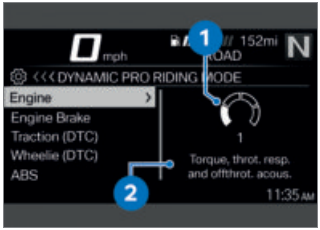
The DYNAMIC PRO riding mode can be individually adjusted.

Setting up the PRO riding mode

- Turning on the ignition (➠ 56).
- Go to `Settings`, `Vehicle settings` menu.
- Select and activate `Pro riding mode`.

Adjusting Dynamic Pro

- Setting up the PRO riding mode (➠ 70).
- Select `DYNAMIC PRO riding mode` and confirm.



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

- Adjust the system.

» The `Engine Brake`, `Traction (DTC)`, `Wheelie (DTC)` and `ABS` systems can all be adjusted in the same way. More detailed information about the riding modes can be found in the chapter Technology in detail:

» Selection (➠ 144)

- The settings can be reset to factory settings:
- Resetting the riding mode settings (➠ 71).

Resetting the riding mode settings

- Setting up the PRO riding mode (➠ 70).
- Select `Reset` and confirm.

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



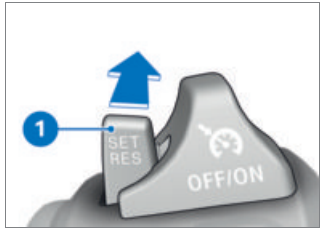
- Briefly push button **1** forward.

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


is displayed.

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

Accelerating



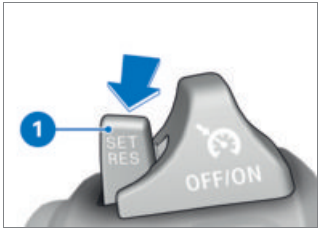
- Briefly push button **1** forward.

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

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

» The speed 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 ABS or DTC interventions, the cruise control is automatically deactivated for safety reasons. If the driver deactivates DTC, the cruise control is also deactivated.

» 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.

 is displayed.

Turning off cruise control



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

» The system is turned off.

» Button **2** is locked.

LAPTIMER

–with M package OE

Starting time recording

- Go to menu `Sport` and switch to the Sport 2 display.
- Start engine.



- Press button **1**.

» The time recording is running.

- Each time when riding over the Start/Finish line, press button **1** again to start the recording for the next racing lap.

» The data of the preceding race lap will be saved.

» The time for the current lap restarts at `00:00:00`.

» The stopped time of a racing lap is displayed for a configurable `Disp. duration` before the system switches to the current time for the current racing lap.

» If the display mode is exited during a recording, then the recording continues to run.

Ending time recording and managing times

Requirement

The display Sport 2 is shown.

- Press MENU rocker button down.

» The menu `LAPTIMER` is displayed.

–`Stop recording` can be used to end a recording that is currently in progress.

–`Laps` can be used to go to the current lap times and riding data. 99 laps can be saved. If you do not delete any laps after reaching the maximum, any further laps will overwrite the first laps.

– Delete all laps can be used to delete all laps.
– Reset Best Ever can be used to reset the best ever racing lap (Best Ever).

Laptimer adjust

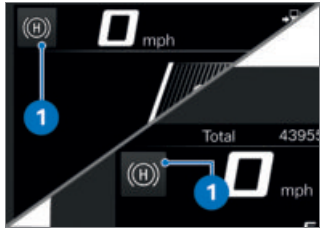
• Call up menu Settings, Vehicle settings, Laptimer.
» The following settings are available:
– Debounce time: If the headlight flasher was operated, the headlight flasher can be operated again within this time without affecting the lap time measurement.
– Disp. duration: Within this time, the stopped time of a lap is displayed before the current lap time is shown.
– Reference: Selection of which best time is shown as the reference. Best: Best time of the current recording or Best Ever: Best ever time measured.
– Best lap in progress: When this function is activated, the display does not show the difference between the last lap time and the reference time, but rather the difference between the current lap time and the reference time.

Best ever racing lap

The best ever racing lap (Best Ever) is the fastest of all recorded racing laps and is updated as soon as a faster lap has been recorded.
The best ever racing lap remains stored even if the recorded racing laps are deleted. As a result, a new race can be recorded at other times and compared with the best lap from previous races.
The best ever racing lap can be deleted in the LAPTIMER menu.
If the best ever racing lap is from a stored recording, the corresponding lap number is also displayed. If the best ever racing lap does not have a lap number, it is from a recording that has already been deleted.

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.

Operating the Hill Start Control Pro

Requirement

Vehicle is at a standstill with the engine running.

ATTENTION

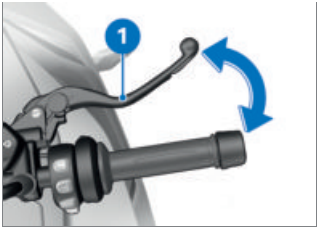
Failure of the drive-off assistant

Risk of accident

- Secure the vehicle through manual braking.

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

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



- Apply 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.

Hill Start Control Pro is deactivated automatically when driving off.

disappears after the brake has been released completely.

» Hill Start Control Pro is deactivated.

- For more information on Hill Start Control Pro, see the "Technology in detail" chapter (➠ 150).

Adjust Hill Start Control Pro

- Turning on the ignition (➠ 56).
- Go to `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`.

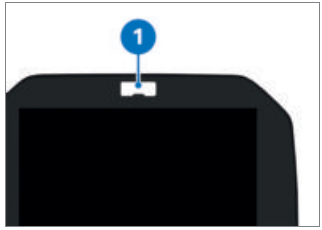
» Hill Start Control Pro can be activated by firmly applying the handbrake or footbrake lever.

» 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.

SHIFTPOINT LIGHT

Turning the shiftpoint light on and off



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

Setting shifting flash

- Turn on the `Shift light` function.
- Go to menu `Settings`, `Vehicle settings`, `Configuration` (under `Shift light`).

» The following settings are available:

–`Start RPM`
–`End RPM`
–`Brightness`

– Frequency. A flashing frequency of 0 Hz corresponds to continuous lighting.
» Changes to the brightness and the flashing frequency are signaled by the shiftpoint light briefly lighting up or flashing.

ANTI-THEFT ALARM SYSTEM (DWA)

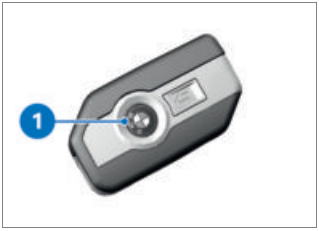
– with anti-theft alarm system (DWA) OE

Activation

- Turning on the ignition (➠ 56).
- Adjust DWA (➠ 80).
- Turn off the ignition.

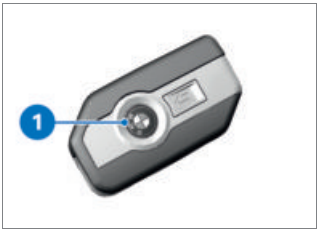
» If the anti-theft alarm is activated, the DWA is automatically activated after the ignition is switched off.
» Activation takes approximately 30 seconds to complete.
» Turn signals flash twice.
» Confirmation tone sounds twice (if programmed).
» DWA is armed.

– 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).
» DWA is armed.



- 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)

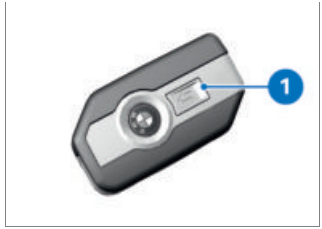
– with Keyless Ride OE

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



A triggered alarm signal can be canceled 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 flashes: DWA disconnected from motorcycle battery
– 5 blinks: motion sensor 3

Deactivating DWA

- Switch on the ignition.

» Turn indicators are illuminated once.
» Confirmation tone sounds once (if programmed).
» DWA is now switched off.

Adjust DWA

- Turning on the ignition (➠ 56).
- 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

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.

TIRE PRESSURE CONTROL (TPC)

–with tire pressure monitor (TPM) OE

Switching setpoint pressure warning on or off

- When the minimum tire pressure is reached, a target pressure warning can be displayed.
- Call up menu `Settings`, `Vehicle settings`, `RDC`.
- Turn `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 (➠ 119).



- 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 three different levels.

Low heater output

Medium heater output

High heater output

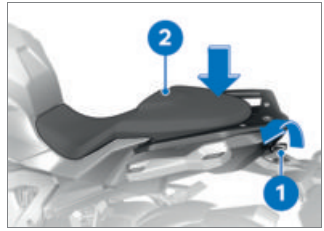
» The 3rd heating level is used for fast heating of the grips; the switch should then be switched back to one of the lower levels.

» 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** disappears.

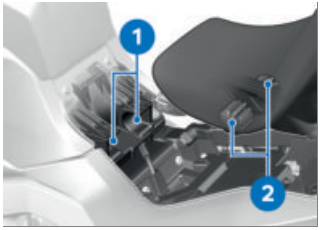
SEAT

Removing the seat



- Push down on rear part of seat **2** to relieve the strain on the lock and at the same time unlock the seat lock with ignition key **1** counterclockwise.
- Lift seat at rear and remove.
- Lay the seat on a clean surface.

Installing the seat



- Position the seat with mounts **1** in buffers **2** on left and right.
- Lower the rear of the seat and engage the seat in the lock.

STORAGE COMPARTMENT

Opening and closing the storage compartment



- To open the storage compartment, press the button **1** and fold open the storage compartment lid.
- To close the storage compartment, fold the storage compartment lid shut.

TFT DISPLAY

05

GENERAL NOTES 86
PRINCIPLE 87
PURE RIDE VIEW 93
GENERAL SETTINGS 94
BLUETOOTH 95
MY VEHICLE 99
NAVIGATION 102
MEDIA 104
PHONE 104
DISPLAYING SOFTWARE VERSION 105
DISPLAYING LICENSE INFORMATION 105

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 (➠ 96). 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

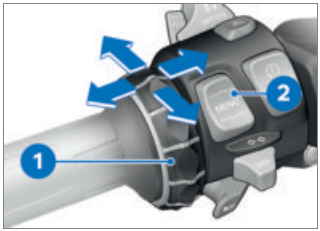
app starts the route guidance and adapts the navigation.

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: Scroll to the next menu screen.

Tilt Multi-Controller to the right:
–Activate the function according to the operating feedback.
–Confirm selection.
–Confirm settings.
–Scroll to the next menu step.
–Scroll to right in lists.
–In the `My vehicle` menu: Scroll to the next menu screen.

Rocker button MENU functions

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

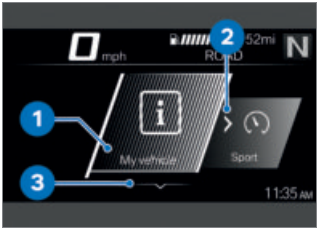
Briefly press the MENU up:
- In the menu view: move up one hierarchy level.
- In the Pure Ride view: Change display for rider info. status line.

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

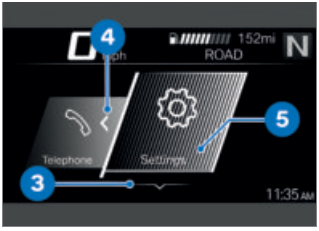
MENU short press down:
- Change a hierarchy level down.
- No function when lowest hierarchy level is reached.

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



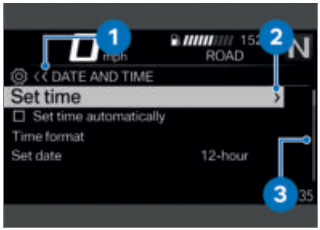
The operating instructions indicate whether and which interactions are possible.



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 it is possible to return to the top.

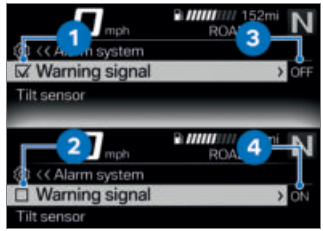
–Operating instructions **2**: Another submenu level can be called up.

–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 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:

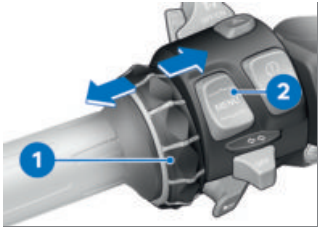
–Icon **1** indicates that the function is turned on.

–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 (➠ 89).
- Briefly press button **2** downward.

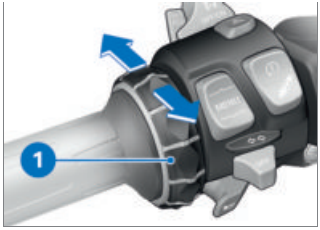
You can go to the following menus:

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

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

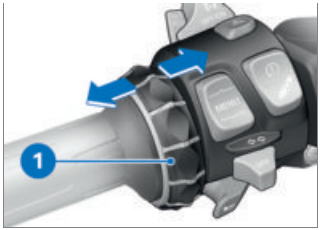
The `Settings` menu can only be called up when stationary.

Moving the cursor in lists



- Going to a menu (➠ 90).
- To move the cursor down in lists, turn the Multi-Controller **1** down until the desired entry is selected.
- To move the cursor up in lists, turn the Multi-Controller **1** up until the desired entry is selected.

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 (➠ 198).
- Show Pure Ride view (➠ 89).
- 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 (➠ 199)

System status displays

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



Examples of the meaning of the system statuses:

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

Selecting display of upper status line

Requirement

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

- Turning on the ignition (➠ 56).

» 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 (RDC) can be displayed.◁

- Selecting status line content (➠ 92).



- 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◁

Fuel tank level

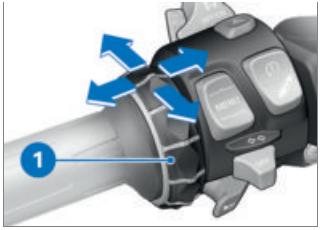
Range

Selecting status line content

- Call up menu Settings, Display, Status line content.
- 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.

Switching Speed Limit Info on or off

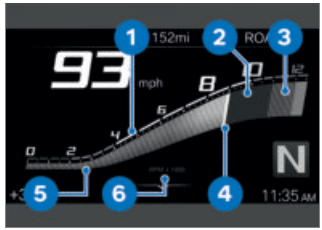
Requirement

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

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

PURE RIDE VIEW

Tachometer



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

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.

GENERAL SETTINGS

Adjusting the volume

- Connect the rider's helmet and the passenger helmet (➠ 97).
- 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 (➠ 56).
- 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 (➠ 56).
- 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 (➠ 96).
- 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. (➠ 212)
» 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. (➠ 213)
» If the Bluetooth connection does not work as expected, the troubleshooting chart in the Technical data chapter may provide assistance. (➠ 213)

Connect the rider's helmet and the passenger helmet
- Pairing (➠ 96).
- 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.

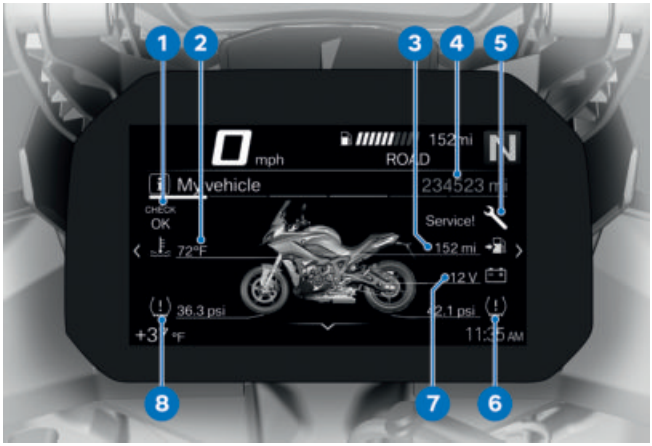
» The connection is established and the connection status is updated.
» If the connection cannot be established, the troubleshooting chart in the Technical data chapter may provide assistance. (➠ 212)
» If the Bluetooth connection does not work as expected, the troubleshooting chart in the Technical data chapter may provide assistance. (➠ 213)

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.

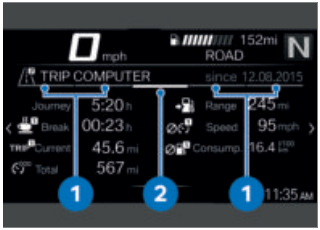
MY VEHICLE

Start screen



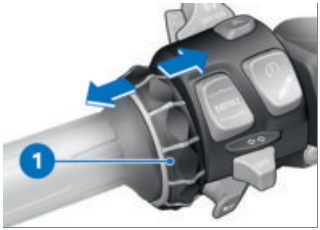
1 Check Control display (➠ 28)
2 Coolant temperature (➠ 40)
3 Range (➠ 94)
4 Odometer
5 Service display (➠ 52)
6 Rear tire pressure (➠ 42)
7 Voltage of the vehicle electrical system (➠ 184)
8 Front tire pressure (➠ 42)

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
–ONBOARD COMPUTER
–TRIP COMPUTER
–with tire pressure monitor (TPM) OE
–TIRE PRESSURE◁
–SERVICE REQUIREMENTS
–CHECK CONTROL MESSAGE (if present)

- More information about tire pressure and Check Control messages can be found in the "Displays" chapter (➠ 28).

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.

Operating the onboard computer

Principle of the operating elements (➠ 87)

Calling up the on-board computer

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

Resetting the on-board computer

- Calling up the on-board computer (➠ 101).
- 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.

Calling up the travel on-board computer

- Calling up the on-board computer (➠ 101).
- Scroll to the right until the TRIP COMPUTER menu panel is displayed.

Resetting the travel on-board computer

- Calling up the travel on-board computer (➠ 101).
- Press MENU rocker button down.
- Select Automatic reset or Reset all values and confirm.

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

Service requirements



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

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 (➠ 97).
- 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. (➠ 213)

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 (➠ 97).
- 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

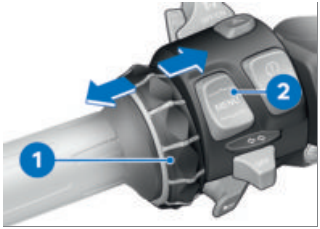
- Call up menu Navigation, Active route guidance.
- Select Current instruction and confirm.

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 (➠ 94).
- 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.

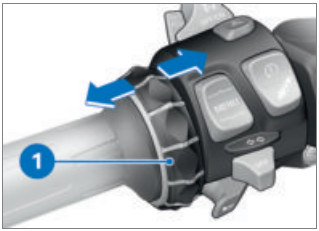
In the Audio settings submenu you can adjust the following settings:
– Turn Shuffle on or off.
– Repeat: Select Off, One (current track), or All.

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 (➠ 96).
`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 108
HEADLIGHT 108
WINDSHIELD 109
BRAKE 109
CLUTCH 110
FOOTREST SYSTEM 111

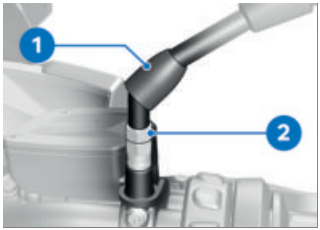
MIRRORS

Adjusting the mirrors



- Move mirrors into desired position by rotating them.

Adjusting the mirror arm



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

Mirror with lock nut on adapter
M10 x 1.25

Mirror with lock nut on adapter
16 lb/ft (22 Nm) (Left-hand thread)

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

HEADLIGHT

Headlight adjustment, right-hand/left-hand traffic

This motorcycle's headlight features a symmetrical low beam. No special measures are required prior to operating the motorcycle in a country where traffic travels on the side of the road opposite to that of your home country (left-hand drive to right-hand drive or vice versa).

Headlight beam throw and spring preload

The headlight beam throw generally remains constant due to the adjustment of the spring preload to the load status.The headlight beam throw is correctly adjusted at the factory.

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



If the spring preload adjustment is no longer able to maintain the correct beam height to avoid dazzling oncoming traffic owing to high vehicle payloads:

- Adjust the height of the headlight beam throw at the adjustment screw **1** on the left and right for both headlights.

If the motorcycle is ridden again with lower payload:

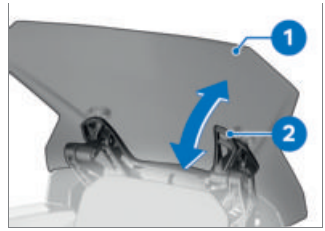
- Restore basic setting of headlight.

WINDSHIELD

Adjusting the windshield

Requirement

The motorcycle is stopped.



WARNING

Adjusting the windshield while driving

Accident hazard

- Only adjust the windshield when the motorcycle is stationary.

- Pull the lever **2** downward to raise the windshield **1**.
- Push the lever **2** upward to lower the windshield **1**.

BRAKE

Adjusting the brake lever

WARNING

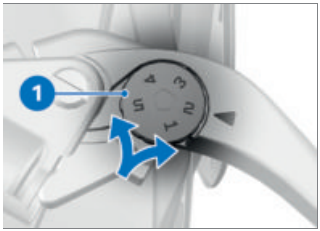
Modified position of the brake fluid reservoir

Air in the brake system

- Do not twist the handlebar fitting or the handlebars.

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.

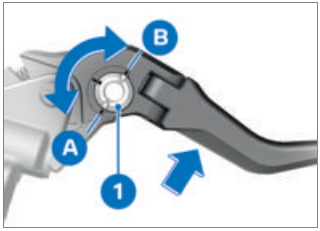


- Turn the adjustment screw **1** into the desired position by applying gentle pressure from the rear.

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

» Adjustment options:
– Position 1: smallest distance between handlebar grip and brake lever
– Position 5: greatest distance between handlebar grip and brake lever

– with Billet pack[OE]



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

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

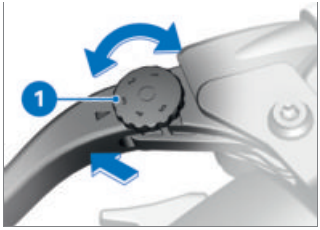
» Adjustment options:
– From position **A**: smallest distance between handlebar grip and brake lever.
– Five steps toward position **B** to increase the distance between the handlebar grip and the handbrake lever.◁

CLUTCH

Adjusting the clutch lever

WARNING

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

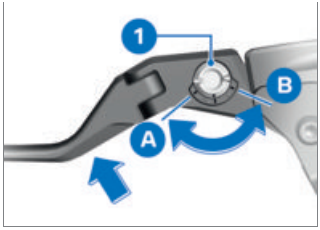


- Turn the adjustment wheel **1** into the desired position.

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 5: largest distance between handlebar grip and clutch lever

– with Billet pack OE



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

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

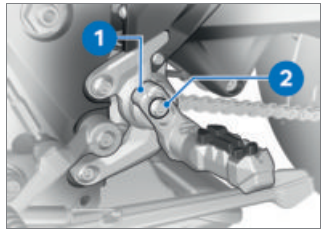
» Adjustment options:
– From position **A**: Smallest distance between handlebar grip and clutch lever.
– Four steps toward position **B** to increase the distance between the handlebar grip and the clutch lever.◁

FOOTREST SYSTEM

– with Billet pack OE

Adjusting the rotor

- The setting of the rotor is adjusted in the same way on the left and right.
- The position of the rotor must have the same setting on the right and left.



- The foot distance and the foot position can be adjusted by means of the rotor **1**.
- Loosen screw **2**.

» The rotor **1** can be adjusted to 5 positions in the rotary axis.
» The rotor **1** can be moved in the rotary axis with infinite variability.
• Align the rotor **1** to the desired position and tighten the screw **2**.

Rotor on base plate
M8 x 35
21 lb/ft (28 Nm)

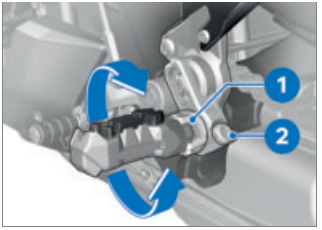
WARNING

Incorrectly adjusted footrest due to the rotor being moved.
Accident hazard
• If the rotor is moved, the footrest adjustment must be adapted accordingly.

• The footrest can only fold upward and slightly backward.

Adjusting the footrest joint

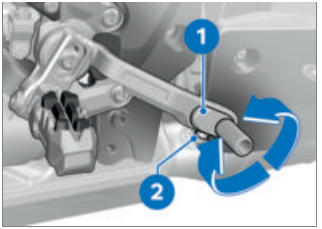
• The setting of the footrest joint is adjusted in the same way on the left and right.



• Loosen screw **2**.
» The footrest joint **1** can be rotated.
• Orient the footrest joint **1** so that the footrest can fold upwards and slightly backwards.
• Tighten screw **2**.

Footrest joint on rotor
M8 x 30
21 lb/ft (28 Nm)

Adjusting the footbrake lever foot plate



• The horizontal and vertical distance of the foot relative to the foot plate **1** can be ad-

justed by turning it to different positions.

- Loosen screw **2**.
- Turn the foot plate **1** to the desired position.
- Tighten screw **2**.

 Foot piece on footbrake lever
M6 x 25
Thread-locking compound: micro-encapsulated
7 lb/ft (9 Nm)

RIDING

07

SAFETY INSTRUCTIONS 116
REGULAR CHECK 118
STARTING 119
BREAKING IN 123
SHIFTING 124
SHIFTPOINT LIGHT 125
BRAKES 125
PARKING THE MOTORCYCLE 127
REFUELING 128
FASTENING MOTORCYCLE IN PLACE FOR TRANS-
PORTATION 133

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.

WARNING

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

Risk of accident

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

Reduced clearance in inclined position

–with lowered OE

Motorcycles with lowered chassis have a reduced ground clearance in angular position and to the ground compared to motorcycles with a standard chassis (see chapter Technical data).

WARNING

When cornering with lowered motorcycles, motorcycle parts can contact the road surface sooner than normal.

Accident hazard

- Carefully test the clearance of the motorcycle in an inclined position and adjust your riding style accordingly.

Test the clearance of your motorcycle at an angle in safe situations. Remember to take the limited ground clearance of your motorcycle into account when riding over curbs and similar obstacles.

Lowering the motorcycle reduces the spring travel. A possible reduction in the accustomed riding comfort may result. Especially in two-up mode,

the spring preload should be adjusted accordingly.

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.

Speed

If you ride at high speed, always bear in mind that various boundary conditions can adversely affect the handling of your motorcycle:
–Settings of spring struts
–Unevenly distributed load
–Loose clothing
–Insufficient tire 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
There is a danger of overheating and damage if misfiring causes unburned fuel to enter the catalytic converter.
The following must be observed:
– Do not run the fuel tank dry.
– Do not run the engine with the spark-plug socket 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 (➠ 160).
–Check operation of the lighting and signal system.
–Check the clutch function (➠ 165).
–Check tire tread depth (➠ 168).
–Check tire pressure (➠ 167).
–Check that luggage is securely held in place.

At every third refueling stop

–Check engine oil level (➠ 159).
–Check the front brake pad thickness (➠ 161).
–Check the rear brake pad thickness (➠ 162).
–Check the front brake fluid level (➠ 163).
–Check the rear brake fluid level (➠ 164).
–Check the coolant level (➠ 166).
–Lubricate drive chain (➠ 177).
–Check the chain tension (➠ 178).
–Check chain for wear (➠ 179).

STARTING

Starting the engine

- Turn on the ignition.

» Pre-Ride-Check is carried out. (➠ 120)
» ABS self-diagnosis is performed. (➠ 121)
» DTC self-diagnosis is performed. (➠ 122)

- 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.

To ensure rapid operational readiness of the catalytic converter, the idle speed is briefly increased after the engine starts.

–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 starter button **1**.

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

» Engine starts.
» Consult the troubleshooting chart if the engine refuses to start. (➠ 212)

Pre-Ride-Check

After the ignition is turned on, the instrument cluster performs a test on the indicator and warning lights—what we call the "Pre-Ride-Check". This test is canceled if the engine is started before it is completed.

Phase 1

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

Phase 2

The general warning light changes from red to yellow.

Phase 3

All of the indicator and warning lights that were turned on are turned off in reverse order.

If one of the indicator and warning lights was not turned on:

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

Depending on the riding mode or its configuration, the intervention of electronic stability control systems can be restricted.
Possible restrictions are displayed as a pop-up message, e.g. `Caution! ABS & DTC setting.`.
You can find more detailed information regarding electronic stability control systems such as ABS and DTC in the "Technology in detail" chapter.

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

Phase 1
» Check on system components monitored by diagnostic system while motorcycle is parked.
 flashes.

Phase 2
» Check wheel speed sensors while starting off.
 flashes.

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

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

If an ABS error is displayed after the ABS self-diagnosis is completed:
- You may continue riding. Bear in mind that neither the ABS function nor the integral function is available.
- Have the malfunction corrected as soon as possible at a specialist workshop, preferably an authorized BMW Motorrad retailer.

ABS self-diagnosis
The self-diagnosis routine checks whether the BMW Motorrad Integral ABS is ready for operation. The self-diagnosis runs automatically when you turn 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 the system components capable of diagnosis while the vehicle is at a standstill.

 flashes.

Phase 2

» Check the wheel speed sensors while riding off.

 flashes.

ABS self-diagnosis completed

» The ABS indicator and warning light goes out.

- Check the display of all indicator and warning lights.

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

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

DTC self-diagnosis

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

Phase 1

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

 flashes slowly.

Phase 2

» Checks diagnosis-capable system components when motorcycle starts to move.

 flashes slowly.

DTC self-diagnosis completed

» The DTC symbol is no longer displayed.

- Check the display of all indicator and warning lights.

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

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

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

BREAKING IN

Engine

- In the period preceding the break-in service, attempt to change rpm and engine load as frequently as possible, avoiding extended periods at constant rpm.
- Choose curvy, slightly hilly sections of road if possible.
- Observe the engine run-in speeds.

Engine run-in speed
<7000 min^{-1} (Odometer reading 0…186 miles (0…300 km))
<9000 min^{-1} (Odometer reading 186…621 miles (300…1000 km))
No full throttle (Odometer reading 0…621 miles (0…1000 km))

- Observe mileage, after which the 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 effect can be compensated for by exerting greater pressure on the brake levers.

WARNING

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

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

WARNING

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

SHIFTING

–with Gearshift Assistant Pro[OE]

Pro Gear Shift Assistant

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.

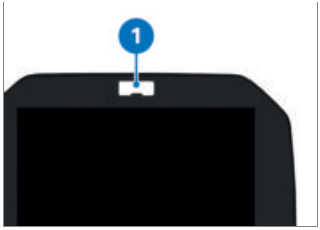


- The gears are shifted into as usual with foot force on the gearshift lever.
» The sensor **1** on the gearshift rod detects the gearshift request and triggers the shift assistance.
» If you are riding at a constant speed in a low gear at high RPMs and attempt to shift gears without clutch control, it can cause a strong load-change response. BMW Motorrad recommends only shifting gears with clutch control in these riding situations. Riders should avoid using the Gear Shift Assistant in the range of the RPM limiter.

» Shift assistance is not available in the following situations:
– If the clutch is operated
– Gearshift lever not in its initial position
– When upshifting with the throttle valve closed (coasting overrun) or when decelerating
• To enable another gearshift with the Gear Shift Assistant, the gearshift lever must be fully released after the first shifting process.

SHIFTPOINT LIGHT

Function



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, see also the Operation (➠ 77) chapter.

BRAKES

How do you achieve the shortest braking distance?

The dynamic load distribution between the front and rear wheel changes during braking. The more pressure you apply to the brake, the greater the weight transfer to the front wheel. Increases in the load on an individual wheel are accompanied by a rise in the effective brake force that the wheel can provide.
To optimize the stopping distance, apply the front wheel brake rapidly and continue to increase the force. This procedure provides ideal utilization of the dynamic load increase to the front wheel. The clutch should also be engaged at the same time.
Locking up of the front wheel is prevented by BMW Motorrad ABS.
With the frequently instructed "emergency braking," in which the brake pressure is gener-

ated as quickly as possible and with great force, dynamic load distribution lags behind the progressive increases in deceleration rate and the braking force cannot be completely transferred to the road. Due to the missing wheel load, the ABS must prevent a tendency of the front wheel to lock up with even minimal braking effect. This results in a reduced braking effect.

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 discs and the brake pads result in a decrease in the braking effect.
Delayed or poorer braking effect must be expected in the following situations:
- When riding in the rain and through puddles.
- After washing the motorcycle.
- When riding on roads spread with salt.
- After working on the brakes due to oil or grease residues.
- When riding on soiled roads or offroad.

WARNING

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

ABS Pro
Physical riding limits

WARNING

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

ABS Pro is activated in the RAIN, ROAD and DYNAMIC riding modes.

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

Use on public roads
ABS Pro and Dynamic Brake Control help make riding your motorcycle on public roads even safer. When braking due to unexpected hazards in curves, ABS Pro prevents blocking and slipping of the wheels within the scope of the physical riding limits.
In the event of emergency braking, Dynamic Brake Control enhances the braking effect and intervenes if the throttle grip is accidentally actuated during braking.

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

PARKING THE MOTORCYCLE

Side stand

- Switch off engine.
- On slopes point the motorcycle uphill and engage 1st gear.

ATTENTION

Poor ground conditions in area of stand
Component damage cause by tipping over
- Always check that the ground under the stand is level and firm.

- Fold out side stand and park motorcycle.

ATTENTION

Loading of the side stand with additional weight
Component damage cause by tipping over
- Do not sit on the motorcycle when it is parked on the side stands.

- If the slope of the road permits, turn the handlebars to the left.

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 prop up motorcycle.

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
Premium unleaded (93) (max. of 5% ethanol, E5) ROZ 98 93 AKI

Alternative fuel quality
Super unleaded (restrictions with regard to power and fuel consumption) (max. 10 % ethanol, E10) 89 AKI (95 ROZ/RON) 90 AKI

Refueling procedure

WARNING

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

WARNING

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

ATTENTION

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

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



- Open the protective flap **1**.
- Unlock the fuel tank cap **2** in a clockwise direction using the ignition key 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. 5.3 gal (Approx. 20 l)

Fuel reserve
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.

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

–with Keyless Ride OE
- Turning off the ignition (➠ 59).

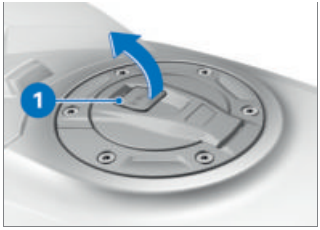
After the ignition is switched off, the fuel filler cap can be opened within the specified run-on time even without the radio-operated key being within the reception area.

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

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

Version 1
–with Keyless Ride OE

Requirement
Within the after-run period



- Slowly pull up the fuel cap tab **1**.
» Fuel filler cap unlocked.
- Open fuel filler cap completely.

Version 2
–with Keyless Ride OE

Requirement
After the after-run period is over

- Bring radio-operated key into reception range.
- Slowly pull up tab **1**.
» The indicator light for the radio-operated key 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. 5.3 gal (Approx. 20 l)
Fuel reserve
Approx. 1.1 gal (Approx. 4 l)

- Press fuel filler cap of fuel tank down firmly.

» Fuel filler cap audibly engages.

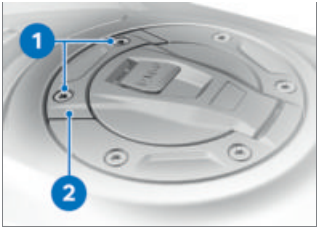
» The fuel cap automatically locks after the after-run period is over.

» 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.



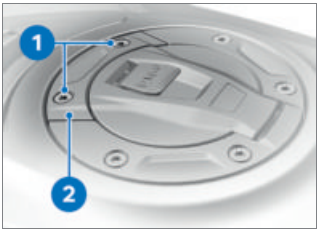
- Remove screws **1**.
- Remove emergency release **2**.

» Fuel filler cap unlocked.

- Open fuel filler cap completely.
- Refueling (➠ 130).
- Close fuel filler cap emergency release (➠ 132).

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

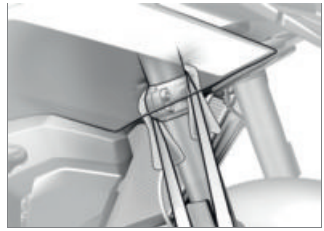
- Protect all components, along which tensioning straps are routed, against being scratched, for example by using adhesive strips or soft cloths.



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.

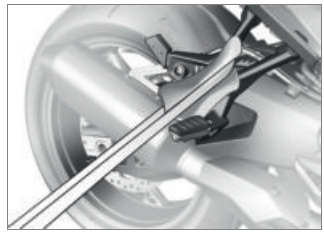
- Push the motorcycle onto the transport surface, and do not prop it on its side stand.



ATTENTION

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

- Lay tensioning straps over the lower fork bridge in front on both sides.
- Tension the tensioning straps downward.



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

be pulled down with the suspension compressed as much as possible.

TECHNOLOGY IN DETAIL

08

GENERAL NOTES 138
ANTI-LOCK BRAKING SYSTEM (ABS) 138
DYNAMIC TRACTION CONTROL (DTC) 142
DYNAMIC ENGINE BRAKE CONTROL 143
DYNAMIC ESA 144
RIDING MODE 144
DYNAMIC BRAKE CONTROL 147
TIRE PRESSURE CONTROL (RDC) 148
GEAR SHIFT ASSISTANT 149
HILL START CONTROL (HILL START CONTROL) 150
ADAPTIVE HEADLIGHT 152

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 wheel brakes are applied simultaneously when you pull the handbrake lever. The footbrake lever acts only on the rear wheel brake.

BMW Motorrad Integral ABS adapts the brake force distribution between the front and rear wheel brakes during braking by means of ABS control 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

- A Burn-out may occur only when the vehicle starts from a standstill. A Burn-out is not within the scope of the vehicle's intended use and can therefore result in fault memory entries.

How does ABS work?

The maximum braking force that can be transferred to the road is partially dependent on the coefficient of friction of the road. Gravel, ice, snow and wet roads offer a considerably lower coefficient of friction than a dry, clean asphalt surface. The poorer the coefficient of friction of the road is, the longer the braking distance will be.

If the maximum transferable braking force is exceeded when the rider increases the brake pressure, the wheels begin to lock and riding stability is lost, and a fall can result. Before this situation occurs, ABS is activated and the brake pressure is adjusted

to the maximum transferable braking force. This enables the wheels to continue to turn and maintains riding stability regardless of the road condition.

What happens when rough roads are encountered?
Bumpy or rough roads can briefly lead to a loss of contact between the tires and the road surface, until the transferable braking force is reduced to zero. If braking is carried out in this situation, ABS must reduce the brake pressure to ensure riding stability when restoring contact to the road. At this point in time, the ABS must assume extremely coefficients of friction (gravel, ice, snow) so that the running wheels turn in every imaginable case and the riding 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 brake 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 BMW Motorrad ABS ensures riding stability on any surface within the limits of riding physics.

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

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

Special situations
To detect the tendency of the wheels to lock up, the speeds of the front and rear wheel are compared. If the system registers implausible data for an extended period of time it will switch off the ABS as safety precaution and a display will alert you to an ABS error. A self-diagnosis routine must be completed before the fault memory entry will be displayed.

Apart from problems with the BMW Motorrad ABS, unusual riding conditions can also cause a fault memory entry 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 memory entry occur due to an unusual riding condition, the ABS function can be reactivated by switching the ignition off and then on again.

How important is regular preventive maintenance?

WARNING

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

Reserves for safety
But remember: the potentially shorter braking distances that 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.

ABS Pro
ABS Pro increases safety, in particular when braking in corners. ABS Pro stops the wheels locking up, even if the brakes are actuated quickly. ABS Pro reduces abrupt changes in steering forces, especially during shock braking, and therefore decreases the risk of an undesirable "rearing up" of the vehicle.

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. The signals come from the angular rate sensor, which is already used for Dynamic Traction Control DTC and for Dynamic ESA. With an increasing angle, the brake pressure gradient is increasingly limited at the start of braking. This results in a slower pressure buildup. In addition, the pressure modulation in the range of the ABS control is more uniform.

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

ABS Pro is activated in the RAIN, ROAD, DYNAMIC and RACE riding modes. In the RACE PRO riding mode, ABS Pro can be set individually.

DYNAMIC TRACTION CONTROL (DTC)

How does traction control work?

The traction control compares the wheel circumferential velocities of the front and rear wheels. The slip, and with it the stability reserves at the rear wheel, are determined from the speed difference. The engine control adapts the engine torque when the slip limit is exceeded.

BMW Motorrad DTC is designed as an assistance system for the rider and for riding on public roads. The extent to which the rider affects DTC control can be considerable (weight shifts when cornering, loose luggage on the motorcycle), especially when approaching the limits imposed by the laws of physics.

The system is not optimized for the special conditions encountered under the extreme conditions of competitive off-road and racetrack use. BMW Motorrad DTC can be switched off in such instances.

WARNING

Risky riding style

Risk of accident despite DTC

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

Special situations

As 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, the DTC compares the speeds of the front and rear wheel and takes the angle of inclination and other factors into account.

If the values for the angle of inclination are detected to be implausible for a long period, a substitute value is used for the angle of inclination/the DTC is turned off. In these cases, a DTC 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.

DYNAMIC ENGINE BRAKE CONTROL

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.

–Additionally in the DYNAMIC PRO riding mode: maximum performance. Stability may be impaired on poorly surfaced roads or if using unsuitable tires.

DYNAMIC ESA

–with Dynamic ESA Pro[OE]

Riding position compensation

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

BMW Motorrad recommends the Auto chassis and suspension adjustment.

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

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

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

Adjustment options

Damping modes

–Road: Damping for comfortable road travel

–Dynamic: Damping for dynamic road travel

Load settings

–One-up

–One-up with luggage

–Two-up (with luggage)

–Min: Minimum spring setting (only suitable as an aid for mounting the motorcycle)

–Auto: Riding position compensation with automatic setting of spring setting and damping (recommended chassis setting)

RIDING MODE

Selection

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

–RAIN
–ROAD
–DYNAMIC
–DYNAMIC PRO

For each riding mode, a coordinated setting is available for the following systems: Engine, Engine Brake, Traction (DTC), Wheelie (DTC) and ABS.

In the DYNAMIC PRO riding mode, the settings for the Engine, Engine Brake, Traction (DTC), Wheelie (DTC), and ABS systems can be individually selected.

Torque and throttle response
–In RAIN riding mode: soft throttle response, reduced torque in low gears.
–In ROAD and DYNAMIC riding modes: optimum throttle response, reduced torque in low gears.
–In DYNAMIC PRO riding mode: optimum throttle response, maximum torque.

Additionally in DYNAMIC PRO riding mode: soft throttle response.

Engine braking effect
–In the RAIN and ROAD riding modes: maximum braking effect from the engine and maximum stability.
–In the DYNAMIC and DYNAMIC PRO riding modes: medium braking effect from the engine and high stability.

–Additionally in the DYNAMIC PRO riding mode: minimum braking effect from the engine and maximum performance.

Traction control (DTC)
–In the RAIN riding mode: maximum stability on wet roads. Acceleration may be reduced on dry roads.
–In the ROAD riding mode: high stability on dry roads. Acceleration may be slightly reduced on dry roads.
–In the DYNAMIC riding mode: high performance on dry roads. In poor road conditions, optimum stability cannot be guaranteed.
–In the DYNAMIC PRO riding mode: Maximum performance. Stability may be impaired on poorly surfaced roads or if using unsuitable tires.

Wheelie (DTC) - front wheel lifts off the road

–In the RAIN riding mode: maximum stability. Wheelie suppression is attempted.
–In the ROAD and DYNAMIC riding modes: flat Wheelie is possible, optimum propulsion.
–In the DYNAMIC PRO riding mode: the system is deactivated.

–Additionally in the DYNAMIC PRO riding mode: high Wheelie possible. The rider has to brake the rear wheel themselves in order to prevent a rollover. The system intervenes late.

ABS

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

–Additionally in the DYNAMIC PRO riding mode: the use of the ABS can be individually adjusted.

DYNAMIC ESA

–In the RAIN, ROAD, DYNAMIC and DYNAMIC PRO riding modes: damper characteristics are adjusted for comfortable riding.

–with Dynamic ESA Pro[OE]

DYNAMIC ESA PRO

Additionally in the RAIN and ROAD riding modes: damper characteristics are adjusted for dynamic riding.
Additionally in the DYNAMIC and DYNAMIC PRO riding modes: damper characteristics are adjusted for comfortable riding.

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

Dynamic Brake Control function

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

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

Detection of emergency braking

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

Behavior during emergency braking

– If emergency braking is applied at a speed of more than 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 action of emergency braking.
– If the gas is shut off (throttle position <5%) during the intervention of the Dynamic Brake Control, the engine torque required by the ABS brake system will be restored.
– If the emergency braking is stopped and the throttle grip is still under actuation, the Dynamic Brake Control reduces the engine torque as

required by the rider in a controlled manner.

TIRE PRESSURE CONTROL (RDC)

–with tire pressure monitor (TPM) OE

Function

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

The sensors are equipped with a centrifugal controller, which does not enable the transmission of the measured values until the minimum speed is exceeded for the first time.

Minimum speed for the transmission of the RDC measured values:
min 19 mph (min 30 km/h)

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

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

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

Tire inflation pressure ranges

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

–Tire pressure within the permissible tolerance

–Tire pressure within the limit range of the permissible tolerance

–Tire pressure outside of the permissible tolerance

Temperature compensation

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

The tire pressures are shown in the 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 compensation for the air tempera-

ture, 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 Operating Instructions, the tire pressure should have the following value:
36.3 psi (2.5 bar)
The following value is displayed in the TFT display:
33.4 psi (2.3 bar)
The shortfall is thus:
2.9 psi (0.2 bar)
The tester at the filling station shows:
34.8 psi (2.4 bar)

 Example
To produce the correct tire pressure, this must be increased to the following value:
37.7 psi (2.6 bar)

GEAR SHIFT ASSISTANT

–with Gearshift Assistant Pro OE

Gear Shift Assistant Pro
Your motorcycle is equipped with the Gear Shift Assistant originally developed for racing but now specially adapted for use in public highway traffic. 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 passenger due to shorter gear-change intervals.
–Throttle valve does not have to be closed when changing gear under acceleration.
–During deceleration and downshifts (throttle plate closed) the system blips the

throttle valve to obtain the correct engine speed.
– Shifting times are faster than when the clutch is used to change gears.

For the system to detect the rider's intention to change gear, the gear 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 gearshift lever must be fully released before the Pro Gear Shift Assistant can execute a new gear change. When shifting gears using the Gear Shift Assistant Pro, the load condition (throttle grip position) must remain constant both prior to and during the gear shift. Changing the accelerator twist-grip position during the gear-shift sequence may cause the function to abort and/or the gear change to fail. The Gear Shift Assistant Pro does not provide support when gear shifts are made with clutch control.

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 12000 min^{-1}

Upshifts
– The Gear Shift Assistant does not provide added support when the engine speed falls below idle speed in the new gear.

 Idle speed
$1270^{\pm 50}$ min^{-1} (Engine at operating temperature)

HILL START CONTROL (HILL START CONTROL)

Hill Start Control function
The Hill Start Control function prevents uncontrolled rolling back on slopes by means of targeted intervention in the partial integral ABS brake system, without the rider having to continuously operate the brake lever. When Hill Start Control is activated, pressure builds in the

rear brake system so that the motorcycle remains stationary on a sloping surface.
The brake pressure in the brake system depends on the gradient.

Influence of gradient on brake pressure and starting behavior

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

Behavior when the vehicle is rolling or slipping

–The brake pressure increases when the vehicle is rolling with Hill Start Control active.
–If the rear wheel skids, the brake is released again after approx. 1 m. This prevents, for example, the vehicle from skidding with a locked rear wheel.

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 to 1.2 mph (1 to 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.

ADAPTIVE HEADLIGHT

–with Adaptive Lights[OE]

Function

In addition to the low beams, high beams and daytime running lights or parking lights, the headlight is equipped with separate LED elements with their own reflectors. Depending on the angle, the LED elements are also switched on for the low beams in order to improve the illumination of the interior range of the curve. The adaptive front lighting is optimized for an angle of up to 25°.
The adaptive front lighting is activated under the following conditions:

–The angle is greater than 10°.
–The speed is higher than 10 km/h.
–The low beams are switched on.

MAINTENANCE

09

GENERAL NOTES 156
ONBOARD VEHICLE TOOL KIT 157
FRONT WHEEL STAND 157
REAR-WHEEL STAND 158
ENGINE OIL 159
BRAKE SYSTEM 160
CLUTCH 165
COOLANT 166
TIRES 167
RIMS 168
WHEELS 168
DRIVE CHAIN 177
LIGHT SOURCE 180
JUMP-STARTING 182
BATTERY 183
FUSES 186
DIAGNOSTIC SOCKET 188

GENERAL NOTES

The 'Maintenance' chapter describes work involving the checking and replacement of wear parts that can be performed with a minimum of effort.

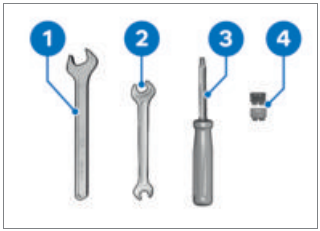
Microencapsulated screws
The microencapsulation is a chemical threadlocker. An adhesive is used to create a solid connection between screw and nut or component. Microencapsulated screws, therefore, are suitable for single use only.

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 Open-ended wrench
Key range: 14 mm
–Adjusting the mirror arm (➠ 108).
–Adjusting chain tension (➠ 179).

2 Open-ended wrench
Key range: 8/10 mm
–Adjusting chain tension (➠ 179).

3 Reversible screwdriver insert
Phillips PH1 and Torx T25

4 Spare fuses
Miniature fuses, 7.5 A and 15 A

FRONT WHEEL STAND

Installing front wheel stand

ATTENTION

Use of BMW Motorrad front wheel stand without additional center or auxiliary stand
Component damage cause by tipping over
- Place the motorcycle on a center or auxiliary stand before lifting the front wheel with the BMW Motorrad front-wheel stand.

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

ATTENTION

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

- Ensure that the motorcycle is standing securely.◁

–without center stand OE

- Put the motorcycle on an auxiliary stand; BMW Motorrad recommends the BMW Motorrad rear-wheel stand.
- Installing rear-wheel stand (➠ 158).◁



- 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

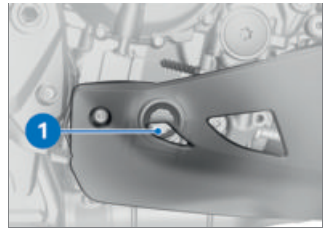
Checking the engine oil level

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.

- When the engine is at operating temperature, hold the motorcycle upright on ground that is level and firm.
- Let the engine run in Neutral for one minute.
- Turn off the ignition.
- Wait five minutes to allow oil to drain into the oil pan.

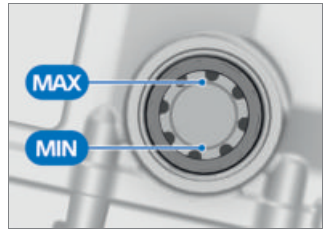
BMW Motorrad recommends occasionally checking the motor oil after a journey of at least 31 mi in order to reduce the environmental impact.



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	

Engine oil, capacity
SAE 5W-40, API SJ/ JASO MA2, Additives (for instance, molybdenum-based substances) are prohibited, because they would attack the coatings on engine components, BMW Motorrad recommends BMW Motorrad ADVANTEC Ultimate oil.
Approx. 1.1 gal (Approx. 4.0 l) (with filter replacement)

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

- Topping up the engine oil (➠ 160).

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.



- Remove cap **1** of oil filler opening.

ATTENTION

Use of too little or too much engine oil

Engine damage

- Always make sure that the oil level is correct.

- Top up the engine oil to the specified level.
- Checking the engine oil level (➠ 159).
- Install cap of oil filler opening **1**.

BRAKE SYSTEM

Checking function of brakes

- Actuate brake lever.

» The pressure point must be clearly perceptible.

- Press the footbrake lever.

» The pressure point must be clearly perceptible.

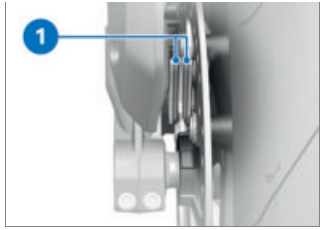
If pressure points are not clearly perceptible:

ATTENTION

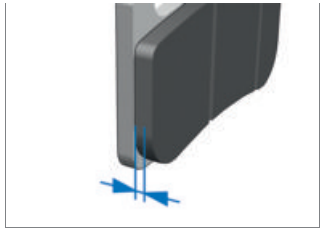
Improper working on the brake system
Endangering of the operating safety of the brake system
- Have all work on the brake system carried out by experts.

- Have the brakes checked by a specialist workshop, preferably an authorized BMW Motorrad retailer.

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



- Visually inspect the brake pad thickness on the left and right. Direction of view: from front, looking at brake pads **1**.



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

If brake pads are worn:

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.

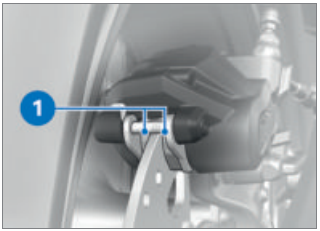
- Have brake pads renewed at a specialist workshop, preferably an authorized BMW Motorrad retailer.
- If original BMW Motorrad brake pads are not installed, be sure to check the thickness of the brake pad carrier plate.

WARNING

Use of unsuitable brake pads
Failure of the brake system due to loss of the brake pads
- Use only brake pads with a sufficient thickness of the brake pad carrier plate.

- BMW Motorrad recommends installing only genuine BMW Motorrad brake pads.

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
min 0.04 in (min 1.0 mm) (Only friction material without carrier plate. The wear marks (grooves) must be clearly visible.)

If the wear mark is no longer visible:

WARNING

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

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

Checking the front brake fluid level

WARNING

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

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

–without center stand OE
- 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)

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.

- Hold the motorcycle upright, making sure that the ground is firm and level.



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

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



Rear brake fluid level
Brake fluid, DOT4
The brake fluid level must not fall below the **MIN** mark. (Brake fluid reservoir horizontal)

If the brake fluid level falls below the approved level:

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

CLUTCH

Checking clutch function

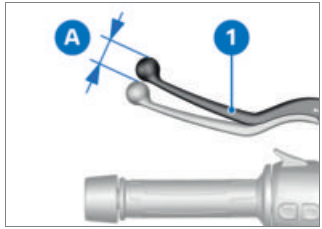
- Pull back the clutch lever.

» The pressure point must be clearly perceptible.

If no clear pressure point can be felt:

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

Checking clutch lever play



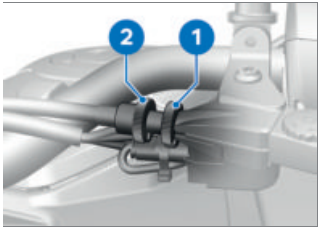
- Operate clutch lever **1** until resistance is felt.
- Measure clutch play **A** between handlebar fitting and clutch lever in this position.

Clutch lever play
0.12...0.2 in (3...5 mm) (measured along the outside of the clutch lever, handlebars in the straight-ahead position, when the engine is cold)

If the clutch pedal free play is outside of tolerance:

- Adjusting clutch lever play (➠ 166).

Adjusting clutch lever play

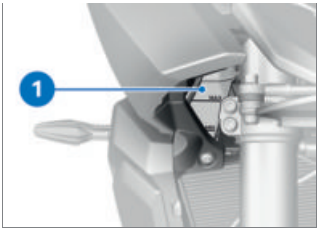


- Loosen lock nut **1**.
- To increase clutch pedal free play: turn screw **2** into the handlebar fitting.
- To reduce clutch pedal free play: loosen screw **2** out of the handlebar fitting.
- Checking clutch lever play (➠ 165).
- Repeat work steps until clutch pedal free play is correctly adjusted.
- Tighten lock nut **1**.

COOLANT

Checking the coolant level

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



- Check coolant level at expansion tank **1**. Direction of view: from front looking at inside of right-hand side panel.



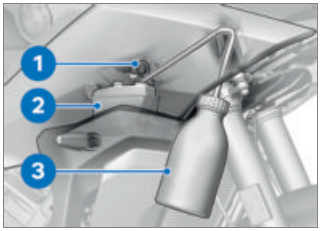
Required coolant level
Between **MIN** and **MAX** marks on the expansion tank (when the engine is cold)

If the coolant level drops below the permitted level:
- Top up coolant.

Topping up coolant



- Use a suitable container for topping up coolant, e.g. laboratory bottle.



- Open cap **1** of expansion tank **2**.
- Add coolant up to specified level using the laboratory bottle **3**.

Coolant top-up quantity
0.2 quarts (0.15 l) (Difference between **MIN** and **MAX**)

Coolant top-up quantity
2.5 quarts (2.4 l) (Entire coolant circuit)
FROSTOX HT-12 (Coolant)

- Checking the coolant level (➠ 166).
- Close cap **1** of expansion tank **2**.

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

Valve inserts open of their own accord at high speeds
Sudden loss of tire inflation pressure
- Use valve caps with rubber sealing ring and screw on firmly.

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

- Check tire pressure 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.

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. Ensure that the ground is firm and level.
- Measure tire tread depth in main tread grooves with wear marks.

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

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

RIMS

Checking wheel rims
- Park motorcycle. Ensure that the ground is firm and level.
- Visually inspect rims for defects.
- Have damaged rims checked and, if necessary, renewed by a specialist workshop, preferably an authorized BMW Motorrad retailer.

WHEELS

Effect of wheel sizes on suspension control systems
The wheel sizes play an important role with suspension control systems such as DTC. 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

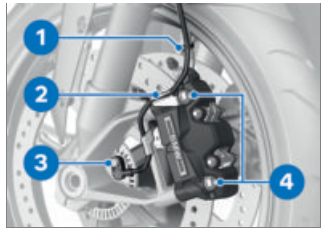
affect the control efficiency of these systems.
The sensor rings required for wheel speed detection must also match the installed control systems and may not be replaced.
If you want to convert your motorcycle to different wheels, please contact a specialist workshop, preferably a BMW Motorrad retailer. In some cases the data stored in the control units must be adapted to the new wheel sizes.

Removing the front wheel

- Put the motorcycle on an auxiliary stand; BMW Motorrad recommends the BMW Motorrad rear-wheel stand.
- Installing rear-wheel stand (➠ 158).
- Mask off areas of the wheel rim that could get scratched in the process of removing the brake calipers.

–with center stand OE

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

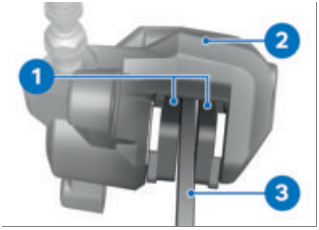


- Detach wheel speed sensor cable from holding clips **1** and **2**.
- Remove the screw **3** and remove the wheel speed sensor from the drilled hole.

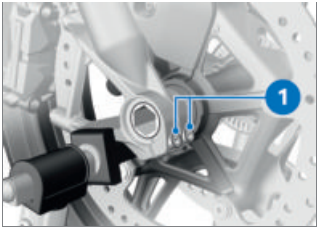
ATTENTION

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 (➠ 157).



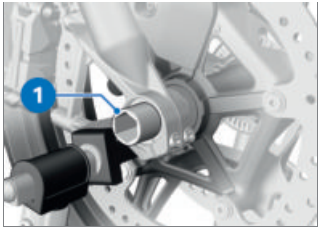
ATTENTION

Incorrect spacing between the sensor ring and wheel speed sensor caused by poorly aligned threaded bushing in the front suspension

Damage to the wheel speed sensor. ABS malfunction

- The left clamp fixes the threaded bushing in position and must not be loosened or removed.

- Loosen axle clamping screws **1**.



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

Installing the front wheel

WARNING

Use of a wheel which does not comply with series specifications
Malfunctions during control interventions by ABS and DTC
- Please see the information on the effect of wheel sizes on the ABS and DTC chassis control systems at the beginning of this chapter.

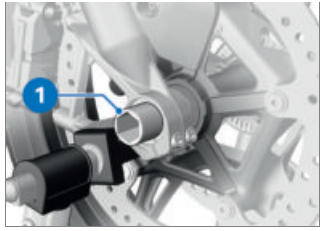
ATTENTION

Tightening of screwed connections with incorrect tightening torque
Damage or loosening of screwed connections
- Always have the tightening torques checked by a specialized workshop, preferably an authorized BMW Motorrad retailer.

ATTENTION

Front wheel installation opposite the running direction
Accident hazard
- Observe running direction arrows on tire or rim.

- Roll the front wheel into the front suspension.

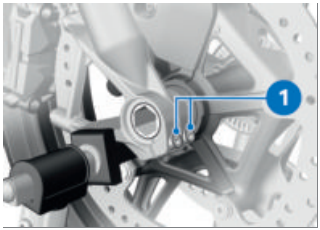


- Lubricate the quick-release axle **1**.

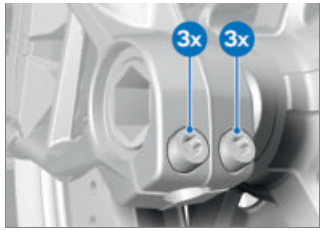
Lubricant
Optimoly TA

- Lift the front wheel and install the quick-release axle **1** to the specified torque.

Quick-release axle in threaded bush
M24 x 1.5
37 lb/ft (50 Nm)

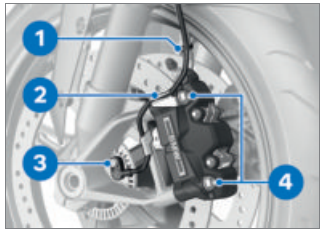


- Tighten axle clamping screws **1** to appropriate torque.



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)

- 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.

Radial brake caliper in axle mount
M10 x 65
28 lb/ft (38 Nm)

- Remove adhesive tape from wheel rim.

WARNING

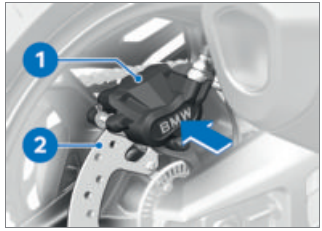
Brake pads do not contact the brake disc
Risk of accident due to delayed braking effect.
- Before driving off, check that the braking effect kicks in without any delay.

- 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 drilled hole and install screw **3**.

Wheel speed sensor on forkleg
M6 x 16
Thread-locking compound: micro-encapsulated
6 lb/ft (8 Nm)

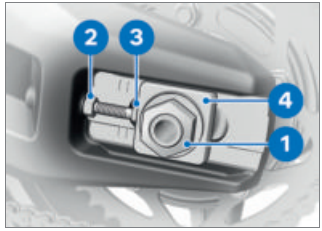
- Remove front wheel stand and auxiliary stand.

Removing the rear wheel
- Raise motorcycle, preferably with a BMW Motorrad rear-wheel stand.
- Installing rear-wheel stand (➠ 158).
- Support the rear wheel, e.g. with a wooden block, so that it cannot fall down after the quick-release axle is removed.



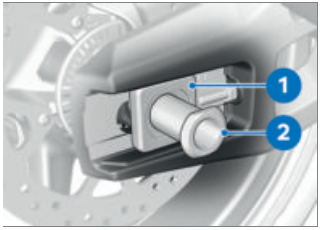
- Press the brake caliper **1** against the brake disk **2**.

» Brake pistons are pressed back.

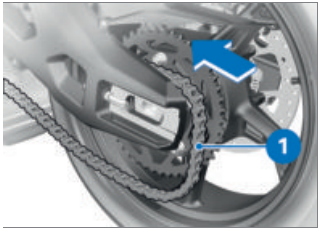


- Remove the axle nut **1** with washer.
- Loosen the lock nuts **2** on the left and right.

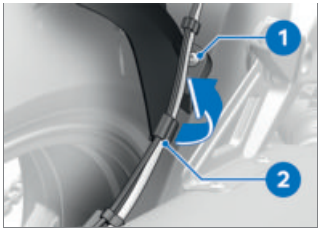
- Loosen the adjustment screws **3** on the left and right.
- Remove the adjustment plate **4** and push the axle in as far as possible.



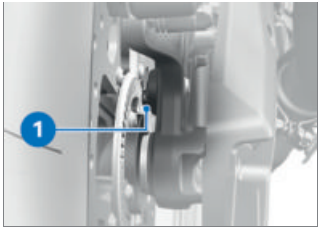
- Remove the quick-release axle **2** and take out the adjustment plate **1**.



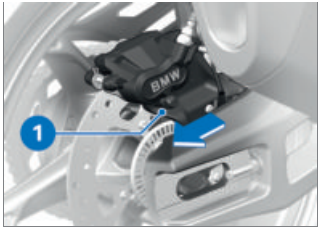
- Roll the rear wheel as far forward as possible and remove the drive chain **1** from the camshaft sprocket.



- Remove screw **1** and detach brake line from bracket **2**.



- Make sure that the wheel speed sensor **1** is not damaged when rolling out the rear wheel.



- Roll rear wheel toward rear out of swinging arm while pulling brake caliper carrier **1**

toward rear until rear-wheel rim can be guided past it.

The camshaft sprocket and the spacing bushings on the left and right are loosely inserted in the wheel. During removal, make sure that the parts are not damaged or lost.

Installing the rear wheel

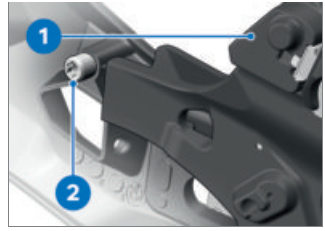
ATTENTION

Altering the tire size
Influence on the control systems
- Have new parameters encoded by a specialist workshop, preferably by an authorized BMW Motorrad retailer.

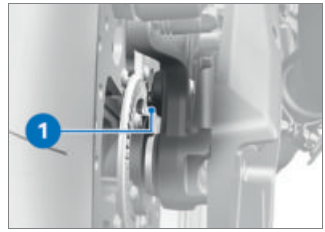
ATTENTION

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.

- Roll the rear wheel on the support into the rocker until the brake caliper carrier can be installed.



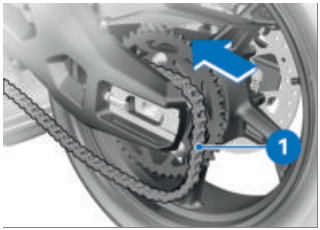
- Mount brake caliper carrier **1** in guide **2**.



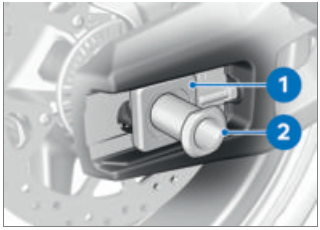
- Make sure that the wheel speed sensor **1** is not damaged when rolling in the rear wheel.



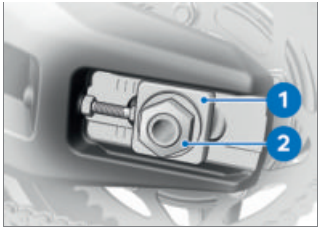
- Roll rear wheel further into swinging arm while simultaneously pushing brake caliper carrier **1** toward front.



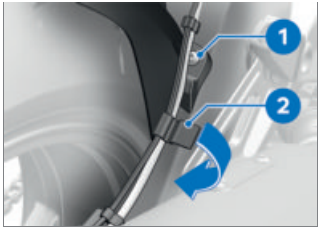
- Roll the rear wheel as far forward as possible and lay the drive chain **1** on the camshaft sprocket.



- Insert the right-hand adjustment plate **1** into the swinging arm.
- Raise the rear wheel and install the quick-release axle **2** through the adjustment plate and into the brake caliper carrier and rear wheel.
- Make sure that the quick-release axle meets the recess for mounting flats.



- Insert the left-hand adjustment plate **1**.
- Install the nut **2** with washer, but do not tighten it yet.



- Fasten brake line in holder **2** and install screw **1**.

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.
- Adjusting chain tension (➠ 179).

DRIVE CHAIN

Lubricating drive chain

- Switch off ignition and engage Neutral.
- Clean drive chain with suitable cleaning agent, dry and apply chain lubricant.

ATTENTION

Insufficient cleaning and lubrication of the drive chain
Increased wear
- Clean and lubricate the drive chain regularly.

- Perform lubrication at shorter intervals after riding in wet conditions, or after riding in dusty or dirty conditions.

Lubricate drive chain at regular intervals.
min 497 miles (min 800 km)

- To extend and maximize the chain's service life BMW Motorrad recommends using BMW Motorrad chain lubricant or:

Lubricant
Chain spray, O-ring compatible

- Wipe off excess lubricant.

Caring for and lubricating the low-maintenance drive chain

–with M Endurance chain[OE]

ATTENTION

Insufficient cleaning and lubrication of the drive chain
Increased wear
- Clean and lubricate the drive chain regularly.

The low-maintenance drive chain is cleaned and lubricated in the course of the annual service interval. In the interest of an optimum service life, the low-maintenance chain can be additionally relubricated using a chain lubricant suitable for low-maintenance chains. Perform lubrication at shorter intervals if there is an above-average load from riding in salty, dusty or dirty conditions.

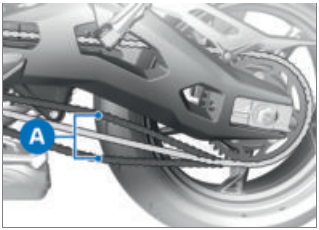
- Switch off ignition and engage Neutral.
- Clean drive chain with suitable cleaning agent, dry and apply chain lubricant. To extend and maximize the chain's service life BMW Motorrad recommends using BMW Motorrad chain lubricant or:

Lubricant
Chain spray, O-ring compatible

- Wipe off excess lubricant.

Checking chain tension

- Park the motorcycle, making sure the ground is level and firm.
- Turn the rear wheel until the position with the lowest chain sag is reached.



- Using a screwdriver, push the drive chain in the middle between the pinion and camshaft sprocket and measure the chain sag **A**.

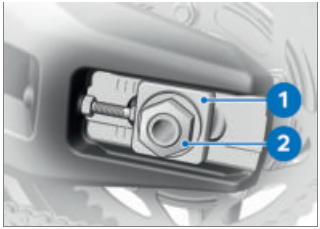
Chain sag
1.8...2 in (45...50 mm) (Motorcycle unloaded on side stand)

If the chain sag is outside the approved tolerance:

- Adjusting chain tension (➠ 179).

Adjusting chain tension

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



- Loosen nut **1**.
- Loosen the lock nuts **3** on the left and right.
- Adjust chain tension with adjustment screws **2** on left and right.
- Checking chain tension (➠ 178).
- Make sure that the same scale value **4** is set on the left and right.
- Tighten the lock nuts **3** on the left and right to the specified torque.

Lock nut of the drive chain tensioning screw
M8
14 lb/ft (19 Nm)

- Tighten nut **1** to the specified torque.

Rear-wheel quick-release axle in swinging arm
M24 x 1.5
Thread-locking compound: mechanical
92 lb/ft (125 Nm)

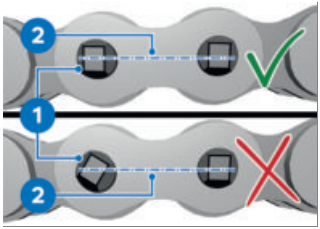
Checking chain for wear

- Engage 1st gear.
- Rotate the rear wheel in the driving direction until the drive chain is tensioned.
- Determine chain length below the rear wheel swinging arm above the center of 10 rivets at 3 different locations.

Permissible chain length
max 5.7 in (max 144 mm) (measured over the **center** of 10 rivets, drive chain under tension)

If the drive chain has reached the maximum approved length:

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



- Check to see whether a rivet head **1** has rotated.

Rivet heads should be parallel to the centerline of the drive chain **2**.

- Riveting is OK.

If one or more rivet heads has rotated:

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

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 **2** from the light housing by turning it counterclockwise.

- Replace the defective light source.

Bulbs for flashing turn indicators
RY10W / 12 V / 10 W

- To prevent dirt from being deposited on the glass surface, always use a clean, dry cloth to hold the light source.



- Install light source **2** in light housing by turning it clockwise.



- Insert the headlight diffuser from the vehicle side into the light housing and close it.



- Install the screw **1**.

Replacing the LED light source

WARNING

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

All light sources on the vehicle are LED light sources. The service life of the LED light sources is longer than the assumed service life of the vehicle. If an LED light source is faulty, please contact a specialist workshop, preferably an authorized BMW Motorrad retailer.

JUMP-STARTING

CAUTION

Touching live parts of the ignition system when the engine is running
Electrocution
- Do not touch parts of the ignition system when the engine is running.

ATTENTION

Current too high when jump-starting the motorcycle
Cable fire or damage to the motorcycle electronics
- Do not jump-start the motorcycle using the power socket, only via the battery terminal.

ATTENTION

Contact between crocodile clips of jump leads and motorcycle
Danger of short circuit
- Use jump leads fitted with fully insulated crocodile clips at both ends.

ATTENTION

Jump-starting with a voltage higher than 12 V
Damage to the motorcycle's electronics
- The battery of the donor vehicle must not exceed a voltage of 12 V.

- Do not disconnect battery from onboard electrical system for jump-starting procedure.
- Removing the seat (➠ 81).
- Run the engine of the donor vehicle during jump-starting.
- Begin by clamping one end of the red jumper cable to the positive terminal of the drained battery and clamping the other end to the positive terminal of the donor battery.
- Then clamp one end of the black jumper cable to the donor battery's negative terminal while connecting the other end to drained battery's negative terminal.
- Start engine of vehicle with drained battery in usual way; if engine does not start, wait a few minutes before repeating attempt in order to protect starter motor and donor battery.

- Allow both engines to idle for a few minutes before disconnecting jumper cables.
- Disconnect jumper cable from negative terminals first, then disconnect second cable from positive terminals.
- Installing the seat (➠ 82).

BATTERY

Maintenance instructions

Correct upkeep, recharging and storage will prolong the service life of the battery and are essential for recognition of warranty claims.

Compliance with the points below is important in order to maximize battery service life:

– Keep the surface of the battery clean and dry.
– Do not open the battery.
– Do not top up with water.
– Be sure to read and comply with the instructions for charging the battery on the following pages.
– Do not turn the battery upside down.

ATTENTION

Discharging of the connected battery by the vehicle electronics (e.g. clock)

Total discharge of battery leading to a rejection of warranty claims

- During riding breaks of more than 4 weeks, connect a trickle-charger to the battery.

BMW Motorrad has developed a trickle-charger specially designed for compatibility with the electronics of your motorcycle. Using this charger, you can keep the battery charged during long periods when the motorcycle is not being used without having to disconnect the battery from the motorcycle's onboard systems. Additional information is available at your authorized BMW Motorrad retailer.

Charging connected battery

ATTENTION

Charging the battery connected to the vehicle using the battery terminals
Damage to the motorcycle's electronics
- Disconnect the battery before charging on the battery terminals.

ATTENTION

A fully discharged battery must be charged via a power socket or extra socket.
Damage to vehicle electronics
- A fully discharged battery (battery voltage less than 12 V, indicator lights and multifunction display remain off when ignition is switched on) must always be charged directly at the poles of the **disconnected** battery.

ATTENTION

Unsuitable chargers connected to the power socket
Damage to charger and vehicle electronics
- Use suitable BMW chargers. The correct charger is available through your authorized BMW Motorrad retailer.

- Charge disconnected battery 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

- Disconnecting battery from vehicle (➠ 185).

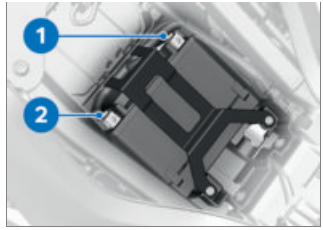
- Charge battery using a suitable charger.
- Comply with operating instructions of charger.
- Once battery is fully charged, disconnect charger's terminal clips from battery terminals.

In the case of longer periods when the motorcycle is not being used, the battery must be recharged regularly. See the instructions for caring for your battery. Always fully recharge the battery before returning it to use.

- Connecting battery to vehicle (➠ 185).

Disconnecting battery from vehicle

- Park the motorcycle, making sure the ground is level and firm.
- Removing the seat (➠ 81).



ATTENTION

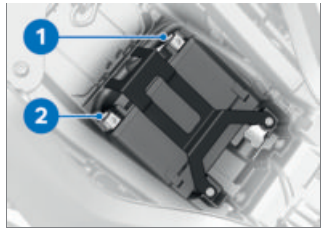
Incorrect battery disconnection

Danger of short circuit

- Follow the disconnection sequence.

- First remove the negative battery cable **1**.
- Then remove the positive battery cable **2**.

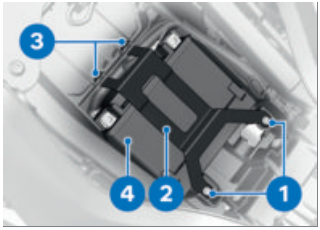
Connecting battery to vehicle



- First install the positive battery cable **2**.
- Then install the negative battery cable **1**.
- Installing the seat (➠ 82).

Removing the battery

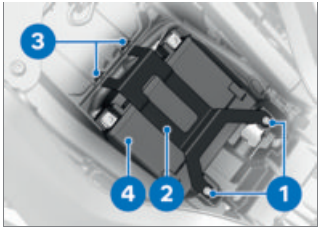
- Removing the seat (➠ 81).
- Disconnecting battery from vehicle (➠ 185).



- Remove screws **1**.
- Loosen the holder **2** from the bracket **3** and remove it.
- Lift the battery **4** up and out; use tilting movements in the event of stiff movement.

Installing the battery

If the vehicle has been disconnected from the battery for a long time, the current date must be entered in the instrument cluster to make sure the service display is working properly.



- Place battery **4** in battery compartment, positive terminal on right in direction of travel.
- Insert the holder **2** in the bracket **3** and install.
- Install screws **1**.
- Connecting battery to vehicle (➠ 185).
- Installing the seat (➠ 82).
- Setting the clock (➠ 94).

FUSES

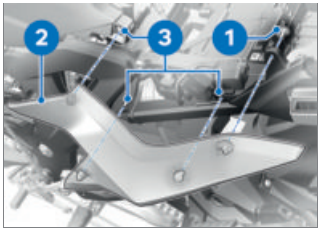
Replacing fuses

ATTENTION

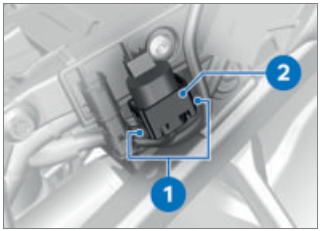
Bypassing defective fuses
Risk of short circuit and fire
- Do not bypass defective fuses.
- Replace defective fuses with new fuses.

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

- Removing the seat (➠ 81).



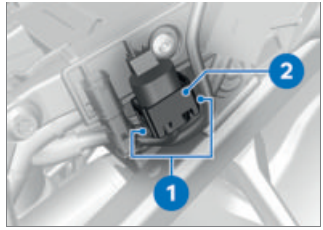
- Remove the screw **1**.
- Carefully loosen side cover **2** from the holding clips **3**.



- Press lock **1** on both sides.
- Pull off the fuse box **2**.
- Replace defective fuse in accordance with fuse assignment.

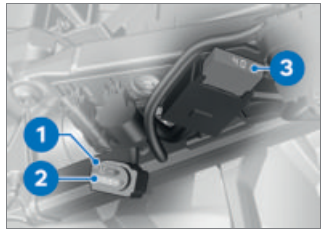
If the fuses blow frequently, have the electrical system checked by an authorized specialized workshop, preferably an authorized BMW Motorrad retailer.

- Reinsert the fuse box **2**. Make sure that the lock **1** engages on both sides.



- Insert side cover **2** into holding clips **3**.
- Install the screw **1**.
- Installing the seat (➠ 82).

Fuse assignments



1 15 A
Instrument cluster
Anti-theft alarm system (DWA)
Ignition lock
Diagnostic socket

2 7.5 A
Multifunction switch, left
Tire pressure control (T-PC)
Sensor box
3 40 A
Alternator regulator

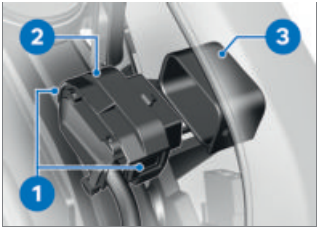
DIAGNOSTIC SOCKET

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 seat (➠ 81).

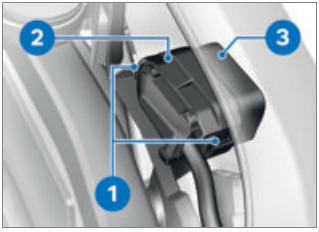


- Press locking mechanisms **1**.
- Detach the diagnostic socket **2** from the holder **3**.

» 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.



- Insert the diagnostic socket **2** into the holder **3**.

» The locks **1** engage.

- Removing the seat (➠ 81).

ACCESSORIES

10

GENERAL NOTES 192
SOCKET 192
USB CHARGING SOCKET 193
CASES 194
TOPCASE 195
NAVIGATION SYSTEM 198

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**

SOCKET

Connecting electrical devices
– The ignition must be switched on before electrical devices connected to the 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 switch-off

–The onboard socket is automatically switched off during starting.
–The socket is switched off no later than 15 minutes after the ignition is switched off to reduce the strain on the vehicle electrical system. Accessories with low power consumption are possibly not detected by the vehicle electronics. In these cases, the onboard socket is switched off shortly after the ignition is switched off.
–In case of insufficient battery voltage, the onboard socket is switched off to maintain the starting capability of the vehicle.
–If the maximum loadability specified in the technical data is exceeded, the onboard socket is switched off.

USB CHARGING SOCKET

–withUSB charging socket[OE]

Notes about use:

Charge current

This is a 5 V USB charging socket providing a maximum charge current of 2.4 A.

Automatic shut-off

The USB charging socket is automatically switched off under the following conditions:
–If the battery voltage is too low to retain the starting capability of the vehicle.
–If the maximum load capacity specified in the technical data is exceeded.
–During the starting procedure.

Connecting electrical devices

The ignition must be switched on before electrical devices connected to the USB charging socket can be operated. To reduce loads on the electrical system, these are switched off no more than 15 minutes after the ignition has been switched off.
To protect against water and vibrations, BMW Motorrad recommends the use of the BMW Motorrad smartphone protective sleeve.
When no device is connected, the cover of the USB charging socket should be closed to prevent contamination.

Cable routing

When routing the cables, ensure that the cables cannot get jammed.

CASES

–with touring case OA

Opening a case

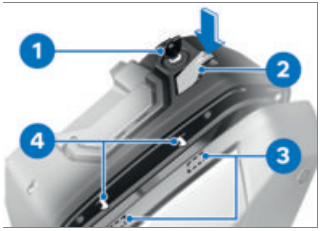


- Turn the key **1** clockwise to the **RELEASE** position.
- Press key **1** down.

» The release lever **2** folds up.

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

Closing a case



- Prepare case for closing.

–Key **1** is in the **RELEASE** position.

–Release lever **2** is set to folded-out position.

- Press the catches **3** of the case lid into the locks **4**. Ensure that no objects are trapped between lid and case.
- Close case lid and press release lever **2** down.

» The lid clicks audibly into place.

- Turn the key **1** counterclockwise to the **LOCK** position and remove it.

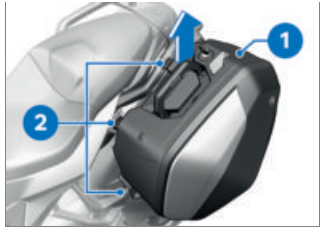
Removing a case



- Turn key **1** counterclockwise.

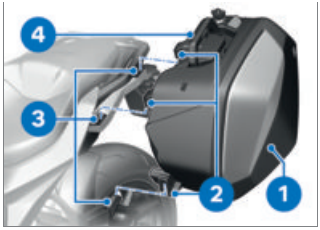
» The release lever **2** folds up.

- Pull release lever **2** upward.

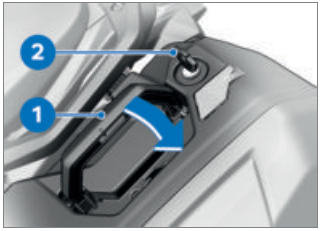


- Lift the case **1** and remove it from the brackets **2**.

Attaching a case



- Position case **1** with opened release lever **4**.
- Make sure that the holders **2** are fully inserted into all brackets **3**.



- Press release lever **1** down.

» Lever **1** audibly engages.

- Turn the key **2** to the **LOCK** position and remove it.

Maximum payload and maximum speed

Observe maximum payload and maximum speed.

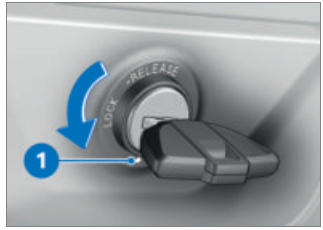
The following values apply for the combination described here:

	Maximum speed for riding with case
max 112 mph (max 180 km/h)	
	Payload per case
max 22 lbs (max 10 kg)	

TOPCASE

–with topcase OA
–with topcase, large OA
–with luggage rack OE

Opening a topcase



- Turn the key in the topcase lock to position **1**.



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

» The release lever **2** pops open.

- 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 circumstances, 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.



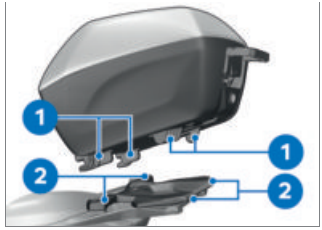
- Fold carrying handle **1** all the way up.
- Raise the rear of the topcase and pull it off the luggage rack.

Installing a topcase

WARNING

Topcase not properly secured
Driving safety is impaired
- Topcase must not shake and must be fastened clearance-free.

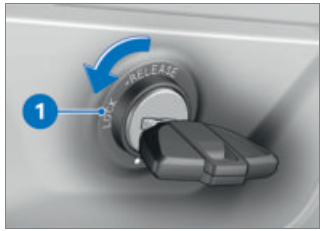
- Fold the carrying handle up to the stop.



- 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 maximum payload and maximum speed.

The following values apply for the combination described here:

Maximum speed when riding with a loaded topcase
max 112 mph (max 180 km/h)
Payload of Topcase
max 11 lbs (max 5 kg)

NAVIGATION SYSTEM

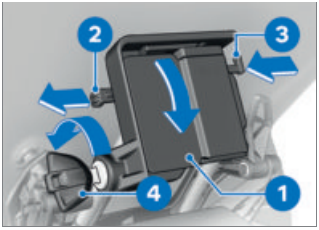
Fastening navigation system securely

–with preparation for navigation system OE

–with navigation system OA

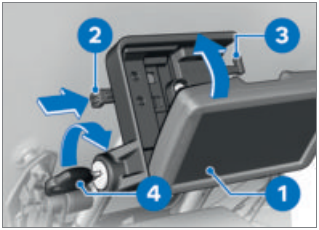
The navigation preparation is suitable as from the BMW Motorrad Navigator IV.

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 **4** counterclockwise.
- Pull the shut-off lock **2** to the **left**.
- Press in the locking mechanism **3**.

» The Mount Cradle is unlocked and the cover **1** 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.

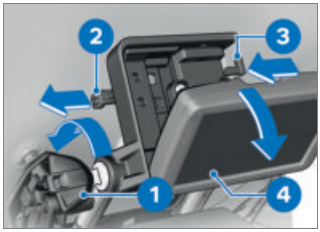
» Navigation system is locked and ignition key can be removed.

Remove navigation system and install cover

–with preparation for navigation system OE
–with navigation system OA

ATTENTION

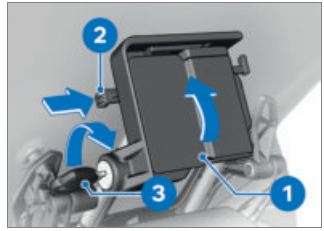
Dust and dirt on the contacts of the Mount Cradle
Damage to the contacts
- Reinstall the cover after end of each drive.



- 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

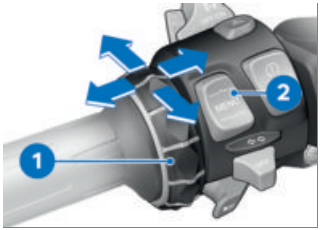
–with preparation for navigation system OE

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 BMW Motorrad Navigator is installed and the operating focus is changed to Navigator (➠ 91), 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 certain 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 lips 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 communi-

cation 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 206
WASHING THE VEHICLE 206
CLEANING SENSITIVE MOTORCYCLE PARTS 207
CARE OF PAINTWORK 208
PAINT PRESERVATION 209
STORING THE MOTORCYCLE 209
PUTTING THE MOTORCYCLE INTO OPERATION 209

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 inside the headlight. During this process, the headlight can become foggy for a while. If moisture accumulates in the headlight on an ongoing basis, contact a specialist workshop, preferably an authorized BMW Motorrad retailer.

WARNING

Damp brake disks and brake pads after washing the motorcycle, after riding through water or in the rain
Poorer braking action, accident hazard
- Brake early until the brake rotors and brake pads are dry.

ATTENTION

Increased effect of salt caused by warm water
Corrosion
- Only use cold water to remove road salt.

ATTENTION

Damage caused by high water pressure from high-pressure cleaners or steam-jet devices
Corrosion or short circuit, damage to labels, to seals, to hydraulic brake system, to the electrical system and the seat
- Exercise caution when using high-pressure or steam-jet devices.

CLEANING SENSITIVE 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.

Trim panel components
Clean trim panel components with water and BMW Motorrad cleaning agent.

Windshields and turn indicator panes are manufactured of 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 cleaning agents.

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.

STORING THE MOTORCYCLE

- Completely fill the motorcycle's fuel tank.

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

- Clean the motorcycle.
- Removing the battery (➠ 186).
- Spray the brake lever and clutch lever as well as side stand pivots with a suitable lubricant.
- Coat bare metal and chrome-plated parts with an acid-free grease (petroleum jelly).
- Park motorcycle in a dry room, raising it to relieve both wheels.

PUTTING THE MOTORCYCLE INTO OPERATION

- Remove the protective wax coating.
- Clean the motorcycle.
- Installing a battery (➠ 186).
- Observe checklist (➠ 118).

TECHNICAL DATA

12

TROUBLESHOOTING CHART 212
SCREW CONNECTIONS 214
FUEL 216
ENGINE OIL 216
COOLANT 217
ENGINE 217
CLUTCH 218
TRANSMISSION 218
REAR-WHEEL DRIVE 218
FRAME 219
CHASSIS 219
BRAKES 220
WHEELS AND TIRES 220
ELECTRICAL SYSTEM 222
ANTI-THEFT ALARM SYSTEM 223
DIMENSIONS 223
WEIGHTS 225
PERFORMANCE DATA 226

TROUBLESHOOTING CHART

Engine does not start at all or is very difficult to start.

Possible cause	Remedy
Side stand extended and gear engaged	Fold in side stand.
Gear engaged and clutch not disengaged	Shift transmission to neutral or disengage clutch.
No fuel in tank	Refueling procedure (➠ 129).
Battery drained	Charging disconnected battery (➠ 184).
Overheating protection for starter motor has triggered. Starter motor can only be actuated for a limited period.	Leave the starter motor to cool down for around 1 minute until it becomes available again.

Bluetooth connection is not established.

Possible cause	Remedy
Necessary pairing steps were not performed.	Refer to the operating instructions of the communication system for the necessary steps for pairing.
The communication system is not connected automatically despite successful pairing.	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.	Confirm the transfer of telephone data (➠ 105) during pairing on the mobile end device.

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.

SCREW CONNECTIONS

Front wheel	Value	Valid
Quick-release axle in threaded bush		
M24 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)	
Radial brake caliper in axle mount		
M10 x 65	28 lb/ft (38 Nm)	

Rear wheel	Value	Valid
Lock nut of the drive chain tensioning screw		
M8	14 lb/ft (19 Nm)	
Nut on swing axle		
M18 x 1.5, Replace nut mechanical	74 lb/ft (100 Nm)	
Rear-wheel quick-release axle in swinging arm		
M24 x 1.5 mechanical	92 lb/ft (125 Nm)	

Rear wheel	Value	Valid
Swinging-arm adapter on rear wheel swinging arm		
M8 x 30	15 lb/ft (20 Nm)	
Spring strut on the relay lever		
M12 x 1.5 x 75- 10.9 micro-encapsulated	74 lb/ft (100 Nm)	

Mirrors	Value	Valid
Mirror with lock nut on adapter		
M10 x 1.25	Left-hand thread, 16 lb/ft (22 Nm)	

Footrest system	Value	Valid
Rotor on base plate		
M8 x 35	21 lb/ft (28 Nm)	–with Billet pack OE
Footrest joint on rotor		
M8 x 30	21 lb/ft (28 Nm)	–with Billet pack OE
Foot piece on foot-brake lever		
M6 x 25 micro-encapsulated	7 lb/ft (9 Nm)	–with Billet pack OE

FUEL

Recommended fuel quality	Premium unleaded (93) (max. of 5% ethanol, E5) ROZ 98 93 AKI
Alternative fuel quality	Super unleaded (restrictions with regard to power and fuel consumption) (max. 10 % ethanol, E10) 89 AKI (95 ROZ/RON) 90 AKI
Usable fuel quantity	Approx. 5.3 gal (Approx. 20 l)
Fuel reserve	Approx. 1.1 gal (Approx. 4 l)
Fuel consumption	38 mpg (6.2 l/100 km), according to WMTC
CO2 emissions	144 g/km, according to WMTC
Emission standard	TIER 2, measured in accordance with FTP75

ENGINE OIL

Engine oil, capacity	Approx. 1.1 gal (Approx. 4.0 l), with filter replacement
Specification	SAE 5W-40, API SJ/ JASO MA2, Additives (for instance, molybdenum-based substances) are prohibited, because they would attack the coatings on engine components, BMW Motorrad recommends BMW Motorrad ADVANTEC Ultimate oil.

BMW recommends ADVANTEC ORIGINAL BMW ENGINE OIL

Engine oil, quantity for topping up	max 1.4 quarts (max 1.3 l), Difference between **MIN** and **MAX**

BMW recommends ADVANTEC ORIGINAL BMW ENGINE OIL

COOLANT

Coolant top-up quantity	0.2 quarts (0.15 l), Difference between **MIN** and **MAX** 2.5 quarts (2.4 l), Entire coolant circuit FROSTOX HT-12, Coolant

ENGINE

Engine number location	Lower part of crankcase, right
Engine type	A11A10A
Engine design	Oil-cooled and water-cooled 4-cylinder, 4-stroke in-line engine, four valves per cylinder
Displacement	999 cc (999 cm^3)
Cylinder bore	3.1 in (80 mm)
Piston stroke	2 in (49.7 mm)
Compression ratio	12.5:1
Nominal capacity	162 hp (121 kW), at engine speed: 11000 min^{-1}
Torque	84 lb/ft (114 Nm), at engine speed: 9250 min^{-1}
Maximum engine speed	max 12000 min^{-1}
Idle speed	$1270^{\pm 50}$ min^{-1}, Engine at operating temperature

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

TRANSMISSION	
Transmission design	Claw-shifted 6-speed manual transmission integrated in engine housing
Transmission gear ratios	1.652 (76:46 teeth), Primary gear ratio 2.647 (45:17 teeth), 1st gear 2.091 (46:22 teeth), 2nd gear 1.727 (38:22 teeth), 3rd gear 1.476 (31:21 teeth), 4th gear 1.304 (30:23 teeth), 5th gear 1.167 (28:24 teeth), 6th gear

REAR-WHEEL DRIVE	
Type of final drive	Chain drive
Chain sag	1.8...2 in (45...50 mm), Motorcycle unloaded on side stand
Permissible chain length	max 5.7 in (max 144 mm), measured over the **center** of 10 rivets, drive chain under tension
Number of teeth of rear-wheel drive (Pinion/sprocket)	17/45
Secondary gear ratio	2.647

FRAME	
Frame design	Aluminum composite bridge frame, integrated engine
Location of type plate	Frame at front left on steering head
Location of the vehicle identification number	Frame at front right on steering head

CHASSIS	
Front wheel	
Type of front suspension	Upside-down telescopic forks
Spring travel, front	5.9 in (150 mm), on front wheel
–with lowered OE	4.7 in (120 mm), on front wheel
Rear wheel	
Type of rear-wheel guide	Two-arm aluminum swinging arm
Spring travel, rear	5.9 in (150 mm), on rear wheel
–with lowered OE	4.7 in (120 mm), on rear wheel

BRAKES	
Front wheel	
Type of front wheel brake	Two-rotor disk brake, diameter 320 mm, 4-piston fixed caliper
Front brake pad material	Sintered metal
Front brake disc thickness	0.18 in (4.5 mm), New min 0.16 in (min 4.0 mm), Wear limit
–with M forged wheels[OE]	min 0.2 in (min 5 mm), New min 0.18 in (min 4.5 mm), Wear limit
Free travel of brake actuation (Front wheel brake)	0.03...0.07 in (0.7...1.7 mm), at piston
Rear wheel	
Type of rear wheel brake	Single-disc brake, diameter 265 mm, 2-piston floating caliper
Rear brake pad material	Organic
Rear brake disc thickness	0.2 in (5 mm), New min 0.18 in (min 4.5 mm), Wear limit
Blow-by clearance of foot-brake lever	0.08...0.12 in (2...3 mm), between footbrake lever and footrest plate

WHEELS AND TIRES	
Recommended tire combinations	An overview of the current tire approvals is available from your authorized BMW Motorrad retailer or on the Internet at **bmw-motorrad.com**.

Speed category of front/rear tires	W, minimum requirement: 168 mph (270 km/h)
Front wheel	
Front wheel design	Aluminum cast wheel
–with M forged wheels OE	Aluminum forged wheel
Front-wheel rim size	3.50" x 17"
Front tire designation	120/70 ZR 17
Load index for front tire	At least 58
Permissible front-wheel imbalance	max 0.2 oz (max 5 g)
Rear wheel	
Rear wheel design	Aluminum cast wheel
–with M forged wheels OE	Aluminum forged wheel
Rear-wheel rim size	6.0" x 17"
Rear tire designation	190/55 ZR 17
Load index for rear tire	At least 75
Permissible rear-wheel imbalance	max 0.2 oz (max 5 g)
Tire pressure	
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

Fuses	
Fuse 1	15 A, Instrument cluster, anti-theft alarm system, ignition switch, diagnostic socket, ignition coil for cut-off relay
Fuse 2	7.5 A, Multifunction switch on left, control unit RDC, sensor box
Main fuse	40 A, Alternator regulator, cut-off relay, BCL, BMS-O, ABS, SAF, fuse box (slot 1 directly and slot 2 via cut-off relay)
Electrical rating of onboard sockets	max 5 A, all slots in total
Battery	
Battery design	AGM (Absorbent Glass Mat)
–with M Lightweight battery OE	Lithium ion
Battery voltage	12 V
Battery capacity	9 Ah
–with anti-theft alarm system (DWA) OE or –with Keyless Ride OE	12 Ah
–with M Lightweight battery OE	5 Ah
Spark plugs	
Spark plugs, manufacturer and designation	NGK LMAR9FI-10G

Light sources	
Bulb for high-beam headlight	LED
Bulbs for low-beam headlight	LED
Bulb for parking light	LED
Bulbs for flashing turn indicators	RY10W / 12 V / 10 W
Light source for license plate light	LED
Bulb for taillight/brake light	LED

ANTI-THEFT ALARM SYSTEM	
Activation time	Approx. 30 s
Alarm duration	Approx. 26 s
Battery type (For Keyless Ride radio-operated key)	CR 2032

DIMENSIONS	
Motorcycle length	85.3 in (2166 mm), over rear wheel
–with lowered OE	85.2 in (2163 mm), over rear wheel
–with topcase OA	91.9 in (2333 mm), over topcase
–with topcase OA –with lowered OE	91.7 in (2328 mm), over topcase

Motorcycle height	55.6...57.7 in (1411...1466 mm), over windshield, at DIN unloaded vehicle weight
–with lowered OE	54.5...56.5 in (1384...1436 mm), over windshield, at DIN unloaded vehicle weight
–with windshield, high OE	56.9...59 in (1445...1499 mm), over windshield, at DIN unloaded vehicle weight
Motorcycle width	33.5 in (850 mm), with handlebar weight
–with hand protection OE	36.1 in (917 mm), with hand protector
–with touring case OA	38 in (965 mm), with case
Front-seat height	33.1 in (840 mm), without rider, at DIN unloaded vehicle weight
–with rider's seat, low OE	32.3 in (820 mm), without rider, at DIN unloaded vehicle weight
–with seat, high OE	33.9 in (860 mm), without rider, at DIN unloaded vehicle weight
–with lowered OE	31.1 in (790 mm), without rider, at DIN unloaded vehicle weight

Rider's inside-leg arc, heel to heel	74 in (1880 mm), without rider, at DIN unloaded vehicle weight
–with rider's seat, low OE	73.5 in (1867 mm), without rider, at DIN unloaded vehicle weight
–with seat, high OE	75.2 in (1911 mm), without rider, at DIN unloaded vehicle weight
–with lowered OE	71.2 in (1809 mm), without rider, at DIN unloaded vehicle weight

WEIGHTS

Unloaded vehicle weight	498 lbs (226 kg), DIN unloaded vehicle weight, ready for road, 90% full tank of gas, without OE
Front wheel load at unloaded vehicle weight	254 lbs (115 kg)
Permissible front wheel load	max 397 lbs (max 180 kg)
Rear wheel load at unloaded vehicle weight	245 lbs (111 kg)
Permissible rear wheel load	max 661 lbs (max 300 kg)
Gross vehicle weight	992 lbs (450 kg)
Maximum payload	494 lbs (224 kg)
Payload of Topcase	max 11 lbs (max 5 kg)
Payload per case	max 22 lbs (max 10 kg)

PERFORMANCE DATA

Maximum speed	>124 mph (>200 km/h)
Maximum speed for riding with case	max 112 mph (max 180 km/h)
Maximum speed when riding with a loaded topcase	max 112 mph (max 180 km/h)

SERVICE

13

REPORTING SAFETY DEFECTS 230
BMW MOTORRAD SERVICE 231
BMW MOTORRAD SERVICE HISTORY 231
BMW MOTORRAD MOBILITY SERVICES 232
MAINTENANCE WORK 232
BMW MOTORRAD SERVICE 232
MAINTENANCE SCHEDULE 234
MAINTENANCE CONFIRMATIONS 235
SERVICE CONFIRMATIONS 247

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 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 (mobile service, breakdown assistance, vehicle recovery and retrieval, etc.).
Contact your authorized BMW Motorrad retailer for additional information on available mobility 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
The BMW running-in check must be carried out between 300 mi (500 km) and 750 mi (1200 km).

BMW MOTORRAD SERVICE

BMW Motorrad Service is carried out once a year.
The scope of the services performed may be dependent on the age of the vehicle and the 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			
5				X			X			X			
6				X			X			X			
7		X	X	X	X	X	X	X	X	X	X		
8				X			X			X			
9												X[b]	X[b]

1 BMW break-in service (including oil change)
2 Standard scope of BMW service
3 Engine oil change with filter
4 Check valve clearance
5 Check valve timings
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] 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.

- Set the service date and remaining distance using the BMW Motorrad diagnostic system
- Performing the vehicle test using the BMW Motorrad diagnostic 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 the clutch cable and clutch lever play
- Checking and lubricating the chain drive
- Check the inserts in the case carrier.
- Checking the tire pressure and tread depth
- Check side stand for ease of movement
- Lubricate the side stand
- Checking center stand for ease of movement
- Checking the lighting and signal system
- Functional check for engine starting suppression
- Final inspection and road safety check
- 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	☐	☐
Checking valve clearance	☐	☐
Checking valve timing (cylinder head cover removed)	☐	☐
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	☐	☐
Checking valve clearance	☐	☐
Checking valve timing (cylinder head cover removed)	☐	☐
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	☐	☐
Checking valve clearance	☐	☐
Checking valve timing (cylinder head cover removed)	☐	☐
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Oil change - telescopic fork	☐	☐
Changing brake fluid in entire system	☐	☐

Notes

Stamp, signature

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performed

on_____
at km_____

Next service
latest
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or, if reached earlier
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BMW Motorrad Service	☐	☐
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Stamp, signature

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on_____
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performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
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performed

on_____
at km_____

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latest
on_____
or, if reached earlier
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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

CERTIFICATE FOR ELECTRONIC IMMOBILIZER 251
CERTIFICATE FOR KEYLESS RIDE 254
CERTIFICATE FOR TIRE PRESSURE CONTROL 258
CERTIFICATE FOR TFT INSTRUMENT CLUSTER 259

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)

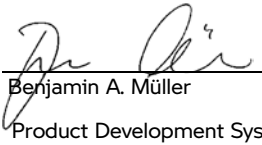
camplies with the appropriate essential requirements of the article 3 of the R&TIE and the other relevant provisions, when used for its intended purpose. Applied Standards:

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.

A
Abbreviations and symbols, 4
ABS
Displays, 47
Self-diagnosis, 121
Technology in detail, 138
Accessories
General notes, 192
Adaptive front lighting, 152
Technology in detail, 152
Air filter
Position in vehicle, 15
Ambient temperature
Outside temperature warning, 35
Anti-theft alarm system
Indicator light, 19, 39
Operating, 78

B
Battery
Charging connected battery, 184
Charging disconnected battery, 184
Connecting to vehicle, 185
Disconnecting from vehicle, 185
Indicator light for vehicle voltage, 36, 37
Installing, 186
Maintenance instructions, 183
Position on vehicle, 16
Removing, 186
Technical data, 222
Best ever lap, 75
Bluetooth, 95
Pairing, 96
Brake fluid
Checking the front fill level, 163
Checking the rear fill level, 164
Front expansion tank, 15
Rear expansion tank, 15
Brake pads
Break-in, 123
Checking the front, 161
Checking the rear, 162
Brakes
ABS Pro, 141
ABS Pro depends on riding mode, 126
Adjusting the handlebar lever, 109
Checking function, 160
Dynamic Brake Control depends on riding mode, 126
Safety instructions, 125
Technical data, 220
Break-in, 123

C
Care
Chrome, 208
Paint preservation, 209
Case, 194
Chain
Adjusting tension, 179
Checking for wear, 179
Checking tension, 178
Lubricating, 177
Chassis
Technical data, 219
Check Control
Dialog, 28
Display, 28
Checklist, 118

Clock
Adjusting, 94
Clutch, 110
Adjusting play, 166
Checking function, 165
Checking play, 165
Technical data, 218
Coolant
Checking the fill level, 166
Indicator light for excess temperature, 40
Technical data, 217

D
Damping, 67
Front adjusting element, 14
Diagnostic socket
Detaching, 188
Fastening, 188
Dimensions
Technical data, 223
Drive malfunction warning light, 41
DTC, 17
Indicator light, 48
Operating, 65
Self-diagnosis, 122
Technology in detail, 142
Turning off, 65
Turning on, 66
DWA, 40
Technical data, 223
Dynamic Brake Control, 147
Technology in detail, 147
Dynamic engine brake control, 143

E
Electrical system
Technical data, 222
Emergency-off switch, 18
Operating, 57
Engine
Drive malfunction warning light, 41
Indicator light for engine control, 42
Indicator light for engine electronics, 41
Parking, 56
Starting, 119
Technical data, 217
Engine oil
Checking the fill level, 159
Fill level indicator, 14, 15
Oil filler opening, 15
Technical data, 216
Topping up, 160
Equipment, 5
ESA
Operating, 66

F
Fall sensor
Indicator light, 46
Frame
Technical data, 219
Front wheel stand
Installing, 157
Fuel
Fuel grade, 128
Refueling, 129
refueling with Keyless Ride, 130, 131
Technical data, 216
Fuel filler cap emergency release, 132
Fuel reserve
Indicator light, 51
Range, 94

Fuses
Position on vehicle, 16
Replacing, 186
Technical data, 222

G
Gearshift assistant, 124, 149
Gear not taught in, 52
Riding, 124
Technology in detail, 149

H
Hazard warning flasher
Operating, 62
Operating element, 17
Headlight
Adjusting the headlight range, 109
Headlight beam throw and spring preload, 108
Setting for right-hand/left-hand traffic, 108
Headlight courtesy delay feature, 63
Headlight range
Adjusting, 109
Heated grips
Operating, 80
Operating element, 18
Hill Start Control, 75, 150
cannot be activated, 51
Indicator and warning lights, 51
Technology in detail, 150
Hill Start Control Pro
Adjusting, 77
Operating, 76
Technology in detail, 150
Horn, 17

I
Ignition
Turning off, 56
Turning on, 56
Immobilizer
Spare key, 60
Wallet key, 57
Indicator lights, 19
ABS, 47
Anti-theft alarm system, 39
Coolant temperature, 40
Drive malfunction warning light, 41
DTC, 48
DWA, 40
Engine control, 42
Engine electronics, 41
Fall sensor, 46
Fuel reserve, 51
Gear not taught in, 52
Hill Start Control, 51
Keyless Ride, 36
Layout, 28
Light control unit failed, 39
Light source defect, 38
My Vehicle, 99
Outside temperature warning, 35
Overview, 22
RDC, 43
Tire pressure control (RDC), 46
Vehicle voltage, 36, 37
Instrument cluster
Ambient light sensor, 19
Overview, 19

J
Jump-starting, 182

K
Keyless Ride, 36
EWS Electronic immobilizer, 60
If radio-operated key is lost, 60
Indicator light, 35, 36
Locking the steering lock, 58
Turning off the ignition, 59
Turning on the ignition, 59
Unlocking the fuel cap, 130, 131
Keys, 56, 58

L
Laptimer, 74
Adjusting, 75
Ending time entry, 74
Starting time recording, 74
Light sources
Indicator light for defective light source, 38
Replacing the LED light source, 181
Technical data, 223
Turn indicators, 180
Lights
Headlight courtesy delay feature, 63
Low beams, 62
Operating element, 17
Operating headlight flasher, 63
Operating high beams, 63
Operating the auxiliary headlights, 63
Parking lights, 62, 63
Lowered suspension
Limitations, 116

M
Maintenance
Maintenance schedule, 234
Maintenance confirmations, 235
Maintenance intervals, 232
Media
Operating, 104
Menu
Going to, 90
Mirrors
Setting, 108
Mobility Services, 232
Motorcycle
Care, 204
Cleaning, 204
Fastening, 133
Parking, 127
Putting into operation, 209
Storage, 209
Multi-Controller, 17
Multifunction display, 26, 27
Displays for racing mode, 25
Multifunction switch
Overview, left, 17
Overview, right, 18

N
Navigation
Operating, 102
Notice concerning current status, 6

O
Onboard computer, 99
Onboard vehicle toolkit
Contents, 157
Position on vehicle, 16
Operating focus change, 91

Outside temperature
Display, 35
Overview of warning indicators, 30
Overviews
Indicator and warning lights, 22
Instrument cluster, 19
Left side of vehicle, 14
Left-side multifunction switch, 17
My Vehicle, 99
Right side of vehicle, 15
Right-hand multifunction switch, 18
TFT display, 23, 24
Underneath the seat, 16

P
Pairing, 96
Parking light, 63
Phone
Operating, 104
Pre-Ride-Check, 120
Pure Ride
Overview, 23

R
Radio-operated key
Replacing the battery, 61
RDC
Indicator lights, 43, 46
Technology in detail, 148
Rear-wheel drive
Technical data, 218
Rear-wheel stand
Installing, 158
Refueling, 129
Fuel grade, 128
with Keyless Ride, 130, 131
Riding mode, 69
Operating element, 18
Setting the PRO riding mode, 70
Technology in detail, 144
Road sign detection
Switching on or off, 93

S
Safety information
For riding, 116
On braking, 125
Seat
Installing, 81, 82
Lock, 14
Removing, 81
Service, 231
Reporting safety defects, 230
Service History, 231
Service display, 52
Shifting flash, 77
Adjusting, 77
switching on/off, 77
Shifting gears
Shiftpoint light, 125
Socket
Information on use, 192
Position on vehicle, 14
Spark plugs
Technical data, 222
Speed control, 17
Operating, 71
Speedometer, 19
Spring preload, 68
Front adjusting element, 14
Rear adjusting element, 14, 15
Start, 119
Operating element, 18

Status bar, top
Setting, 91, 92
Steering lock
Locking, 56
Switching off, 127

T
Tachometer, 19, 93
Technical data
Anti-theft alarm system, 223
Battery, 222
Brakes, 220
Chassis, 219
Clutch, 218
Coolant, 217
Dimensions, 223
Electrical system, 222
Engine, 217
Engine oil, 216
Frame, 219
Fuel, 216
Fuses, 222
General notes, 5
Light sources, 223
Performance data, 226
Rear-wheel drive, 218
Spark plugs, 222
Standards, 5
Transmission, 218
Weights, 225
Wheels and tires, 220
TFT display, 19
Operating, 90, 91
Operating element, 17
Overview, 23, 24
Selecting the display, 87
Tire Pressure Control TPC/RDC
Display, 42
Tires
Break-in, 124
Checking tire pressure, 167
Checking tread depth, 167
Technical data, 220
Tire pressure table, 14
Tire pressures, 221
Topcase
Operation, 195
Torques, 214
Traction Control
DTC, 142
Transmission
Technical data, 218
Troubleshooting chart, 212
Turn signals
Operating, 62
Operating element, 17
Type plate
Position on vehicle, 14

U
USB charging interface
Underneath the seat, 16

V
Values
Display, 28
Vehicle identification number
Position on vehicle, 15
Vehicle voltage
Indicator light, 36, 37

W
Warning lights, 19
Overview, 22
Weights
Payload table, 14
Technical data, 225
Wheels
Checking rims, 168
Installing the front wheel, 171

Installing the rear wheel, 175
Removing the front wheel, 169
Removing the rear wheel, 173
Size change, 168
Technical data, 220
Windshield
Adjusting element, 15
Setting, 109

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.

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WARNING

Harmful substances
Operating and preventive maintenance of a passenger vehicle or off-road vehicle can expose you to substances such as exhaust gases, carbon monoxide, phthalates and lead, which are known to the State of California to be carcinogenic as well as detrimental to childbirth and reproduction.
- To minimize exposure, avoid breathing exhaust gases, do not put the engine in Neutral except as necessary, service your vehicle in a well-ventilated area and wear gloves or wash your hands frequently when servicing your vehicle.
- Further information is available at: **www.P65Warnings.ca.gov/passenger_vehicle**

Important data for refueling:

Fuel	
Recommended fuel quality	Premium unleaded (93) (max. of 5% ethanol, E5) ROZ 98 93 AKI
Alternative fuel quality	Super unleaded (restrictions with regard to power and fuel consumption) (max. 10 % ethanol, E10) 89 AKI (95 ROZ/RON) 90 AKI
Usable fuel quantity	Approx. 5.3 gal (Approx. 20 l)
Fuel reserve	Approx. 1.1 gal (Approx. 4 l)
Tire pressure	
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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