

BMW Motorrad

Rider's Manual

F 850 GS

Vehicle data/dealership details

Vehicle data

Model

Vehicle Identification Number

Colour code

Date of first registration

Registration number

Dealership details

Person to contact in Service department

Ms/Mr

Phone number

Dealership address/phone number (company stamp)

Welcome to BMW

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

About this Rider's Manual

Please read this Rider's Manual carefully before starting to use your new BMW. It contains important information on how to operate the controls and how to make the best possible use of all your BMW's technical features. In addition, it contains information on maintenance and care to help you maintain your vehicle's reliability and safety, as well as its value.
This record of the maintenance work you have had performed on your vehicle is a precondition for generous treatment of goodwill claims.
If the time comes to sell your BMW, please remember to hand over this Rider's Manual to the new owner. It is an important part of the vehicle.

Suggestions and criticism

If you have questions concerning your vehicle, your authorised BMW Motorrad dealer will gladly provide advice and assistance.

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

BMW Motorrad.

01 40 9 467 391



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General instructions

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Overview

Chapter 2 of this Rider's Manual will provide you with an initial overview of your motorcycle. All maintenance and repair work on the vehicle is documented in Chapter 13. This record of the maintenance work you have had performed on your vehicle is a precondition for generous treatment of goodwill claims.
If you sell your BMW some day, please also remember to hand over the Rider's Manual; it is an important element of your motorcycle.

Abbreviations and symbols

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

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

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

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

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

◄ Indicates the end of an item of information.

• Instruction.

» Result of an activity.

Reference to a page with more detailed information.

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


Tightening torque.


Technical data.

NV National-market version.

OE Optional extras.
The vehicles are assembled complete with all the BMW Motorrad optional extras originally ordered.

OA Optional accessories. You can obtain BMW Motorrad optional accessories through your authorised BMW Motorrad dealer; optional accessories have to be retrofitted to the vehicle.

ABS Anti-lock brake system.

ASC Automatic Stability Control.

EWS Electronic immobiliser.

D-ESA Electronic chassis and suspension adjustment.

DTC Dynamic Traction Control (optional extra only in combination with Pro riding modes).

DWA Anti-theft alarm (Diebstahlwarnanlage).

RDC Tyre pressure monitoring.

Equipment

When purchasing your BMW motorcycle, you chose a model with individual equipment. This rider's manual describes optional equipment (OE) and selected optional accessories (OA) provided by BMW. Please make allowance for the fact that some equipment specifications may be described that you have not selected. Equally, country-specific deviations to the motorcycle shown are also possible.
If your motorcycle has equipment that is not described, you will find the relevant description in a separate manual.

Technical data

All dimensions, weights and power outputs in the rider's manual refer to the German standard DIN (Deutsches Institut für Normung e. V.) and comply with its specified tolerances. Technical data and specifications in this rider's manual serve as reference points. The vehicle-specific data may deviate from these, for example as a result of selected optional equipment, the national-market version or country-specific measuring procedures. Detailed values can be taken from the vehicle registration documents and signs on the vehicle, or can be obtained from your authorised BMW Motorrad Retailer or another qualified service partner or specialist workshop. The specifications in the vehicle documents always have priority

over the information provided in this rider's manual.

Currentness

The high safety and quality level of BMW motorcycles is ensured by constant further development in the areas of design, equipment and accessories. This may result in deviations between these operating instructions and your motorcycle. Also, mistakes cannot be completely excluded by BMW Motorrad. Please therefore understand that we do not accept any liability for claims arising from incorrect information, drawings and descriptions.

Additional sources of information

BMW Motorrad Retailer

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

Internet

The rider's manual for your vehicle, operating and installation instructions for any accessories and general information on BMW Motorrad, for example relating to technology, are available at **www.bmw-motorrad.com/service**.

Certificates and operating licences

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

Data memory

General

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

Personal reference

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

using the ConnectedDrive user account.

Data protection rights

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

Vehicle users have the right to obtain full information at no cost from persons or entities storing personal data of the vehicle user. These entities may include:

– Manufacturer of the vehicle
– Qualified service partners
– Specialist workshops
– Service providers

Vehicle users have the right to request information on what personal data has been stored, for what purpose the data is used, and where the data comes from. To obtain this information, proof of ownership or use is required. The right to information also includes information about data that has been shared with other companies or entities.

The website of the vehicle manufacturer contains the applicable data protection information. This data protection information includes information on the right to have data deleted or corrected. The manufacturer of the vehicle also provides their contact details and those of the data protection officer on their website.

The vehicle owner can also request that a BMW Motorrad Retailer or another qualified service partner or specialist workshop read out the data that is stored in the vehicle for a charge.

The vehicle data is read out using the legally prescribed socket for on-board diagnosis (OBD) in the vehicle.

Legal requirements for the disclosure of data

As part of its legal responsibilities, the manufacturer of the vehicle is obligated to make its stored data available to the relevant authorities. This data is provided in the required scope in individual cases, for example to clarify a criminal offence.

In the context of applicable laws, public agencies are entitled in individual cases to read out data from the vehicle themselves.

Operating data in the vehicle

Control units process data to operate the vehicle.

This includes, for example:

– Status reports of the vehicle and its individual components, for example wheel revolutions, wheel speed, deceleration

– Environmental conditions, for example temperature

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

– Operating conditions of system components, for example filling levels, tyre pressure
– Malfunctions and faults in important system components, for example light and brakes
– Response of the vehicle in special riding situations, for example engagement of the driving dynamics systems
– Information on incidents resulting in damage to the vehicle

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

check warranty claims from the customer.
Error and incident memories in the vehicle can be reset during servicing or repair work by a BMW Motorrad Retailer or another qualified service partner or specialist workshop.

Data input and data transfer in the vehicle

General

Depending on the equipment, comfort and customised settings can be stored in the vehicle and can be changed or reset at any time.
This includes, for example:
– Settings of the windscreen position
– Chassis and suspension settings

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

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

Incorporation of mobile end devices

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

The scope of the possible settings depends on the corresponding app and the operating system of the mobile end device.

Services

General

If the vehicle has a wireless connection, this enables the exchange of data between the vehicle and other systems. The wireless connection is enabled by the vehicle's own transmitter and receiver unit or using personally integrated mobile end devices, for example smartphones. Online functions can be used using this wireless connection. These include online services and apps that are provided by the vehicle manufacturer or by other providers.

Services of the vehicle manufacturer

For online services of the vehicle manufacturer, the individual functions are described at suitable points, for example rider's manual, website of the manufacturer. At the same time, information is also provided on the relevant data protection law. Personal data may be used to provide online services. Data is exchanged using a secure connection, for example with the IT systems provided by the vehicle manufacturer.

Obtaining, processing and using personal data outside of the normal provision of services requires legal permission, contractual agreement or consent. It is also possible to have the entire data connection activated or deactivated. Statutory functions are excluded from this.

Services from other providers

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

Intelligent emergency call system

– with intelligent emergency call[OE]

Principle

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

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

For information on operating the intelligent emergency call system and its functions, please refer to "Intelligent emergency call".

Legal basis

Processing of personal data using the intelligent emergency call system is in line with the following regulations:

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

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

The legal basis for the activation and function of the intelligent emergency call system is the completed ConnectedRide contract for this function, as well as the corresponding laws, ordinances and directives of the European Parliament and of the European Council.

The relevant ordinances and directives regulate the protection of natural persons during the processing of personal data.

The processing of personal data by the intelligent emergency call system satisfies the European directives for the protection of personal data.

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

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

SIM card

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

Improving quality

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

Location determination

The position of the vehicle can be determined exclusively by the mobile phone network provider based on the mobile phone site locations. The provider cannot link the vehicle identification number and phone number

of the installed SIM card. Only the manufacturer of the vehicle can link the vehicle identification number and phone number of the installed SIM cards.

Log data of emergency calls

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

Automatic emergency call

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

Sent information

In the event of an emergency call by the intelligent emergency call system, the same information is sent to the commissioned emergency call centre as is sent by the statutory emergency call system eCall to the emergency services.

In addition, the intelligent emergency call system sends the following additional information to an emergency call centre commissioned by the vehicle manufacturer and, if required, to the emergency services:

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

Data storage

The data for an activated emergency call is stored in the vehicle. The data contains information on the emergency call, for example the location and time of the emergency call.

The voice recordings of the emergency call are stored at the emergency call centre.

The voice recordings of the customer are stored for 24 hours in case details of the emergency call need to be analysed. After this, the voice recordings are deleted. The voice recordings of the employee of the emergency call centre are stored for

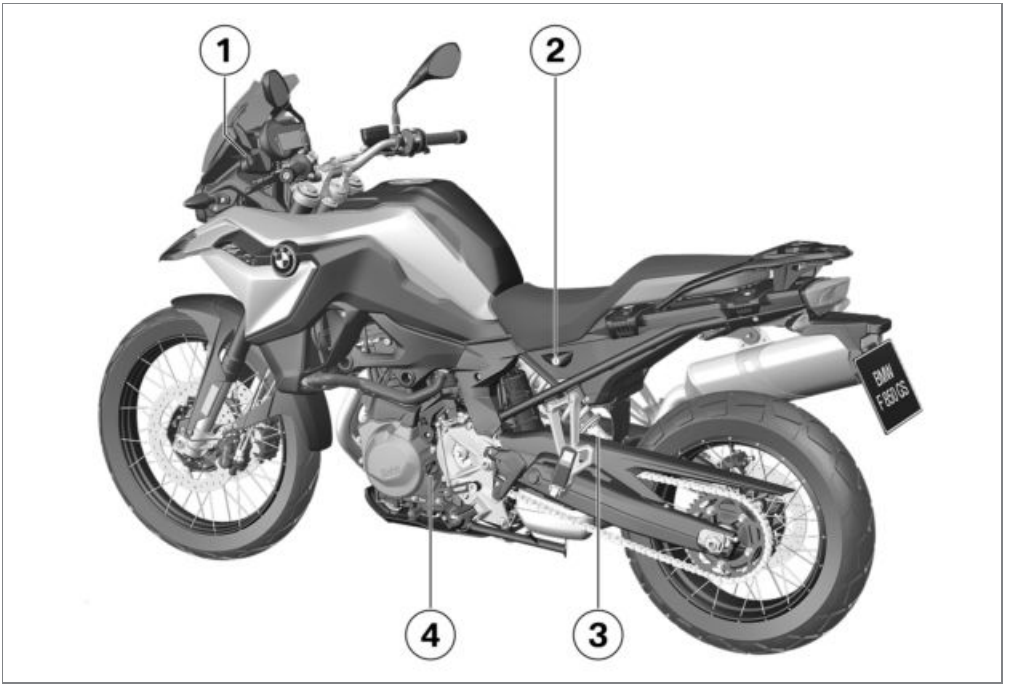
24 hours for quality assurance purposes.

Information on personal data

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

General views

General view, left side 19
General view, right side 21
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Multifunction switch, left 23
Multifunction switch, right 25
Instrument panel 26
Instrument cluster with Connectivity 27


1
2
4
3
BMW
F 850 GS

General view, left side

1 Power socket (➠ 236)
2 Seat lock (➠ 127)
3 Setting the damping action (➠ 161)
4 Oil filler neck and oil dipstick (➠ 200)

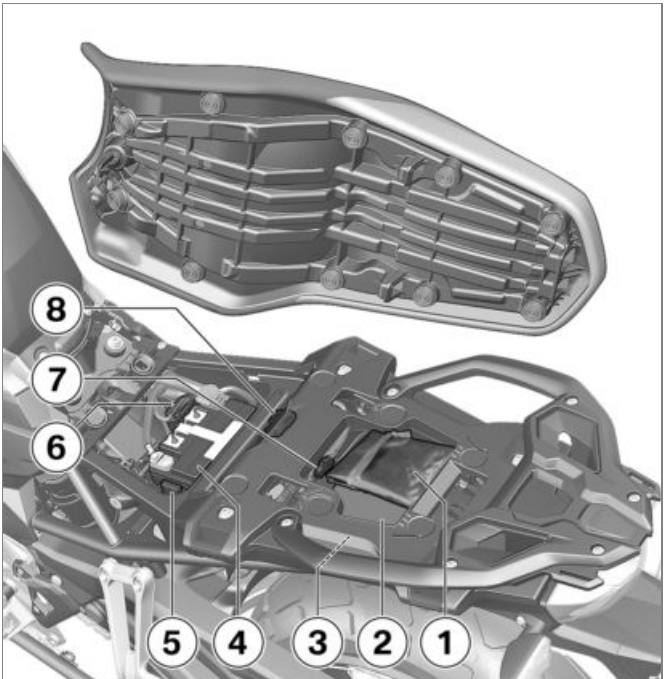

1
2
3
4
5

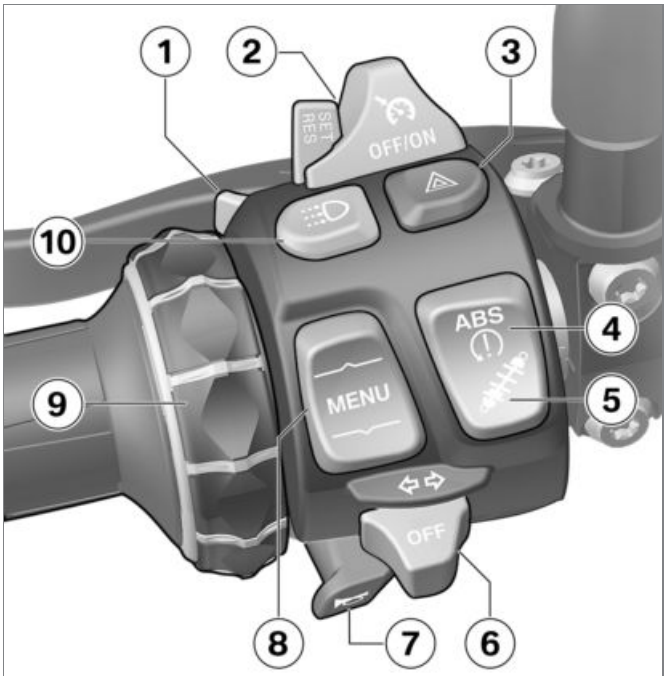
General view, right side

1 Setting the spring preload (➠ 160)
2 Brake-fluid reservoir, rear (➠ 205)
3 Brake-fluid reservoir, front (➠ 204)
4 Vehicle identification number, type plate (on steering head)
5 Coolant level indicator (behind the side trim panel) (➠ 207)

Underneath the seat

1 Rider's manual (➠ 6)
2 Toolkit (➠ 198)
3 Payload table
4 Battery (➠ 226)
5 Replacing main fuse (➠ 229).
6 Diagnostic connector (➠ 231)
7 Connector for encoding plug
– with riding modes Pro OE
Install the coding plug. (➠ 119).
8 Replace fuses (➠ 230).





Multifunction switch, left

1 High-beam headlight and headlight flasher (➠ 97)

2 – with cruise control[OE] Cruise-control system (➠ 124).

3 Hazard warning lights system (➠ 100)

4 ABS (➠ 109)
ASC (➠ 111)
– with riding modes Pro[OE] DTC (➠ 112)

5 – with Dynamic ESA[OE] Possible settings (➠ 114)

6 Turn indicators (➠ 101)

7 Horn

8 MENU rocker switch (➠ 131)

9 Multi-Controller Controls (➠ 131)

10 – with daytime riding light[OE]
Manual daytime riding light (➠ 98).



Multifunction switch, right

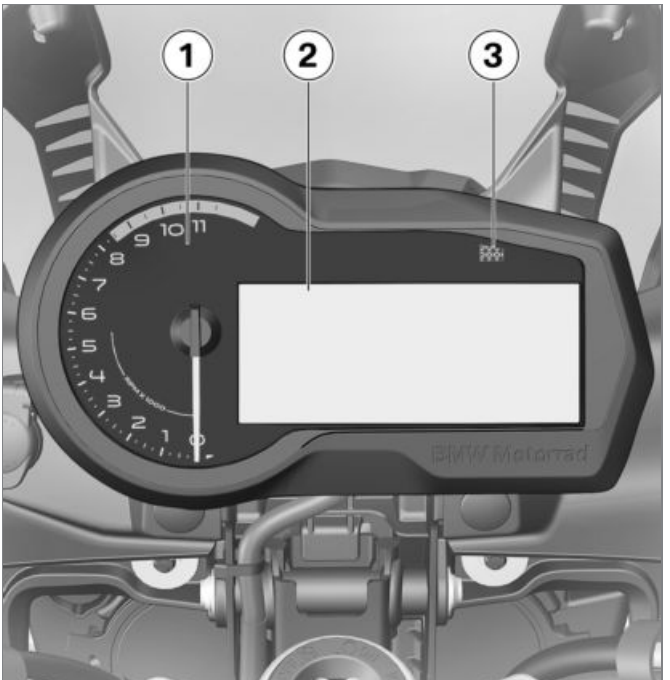
1 – with heated grips OE
Operating the heated handlebar grips (➠ 126).
2 Riding mode (➠ 117)
3 Emergency off switch (kill switch) (➠ 93)
4 Starter button (➠ 167)
5 SOS button
Intelligent emergency call (➠ 94)

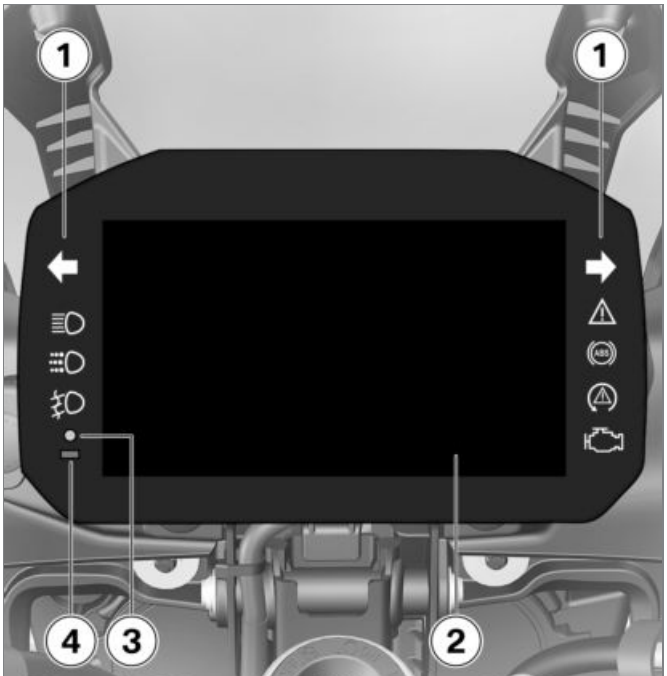
Instrument panel

1 Engine speed display, indicator and warning lights (➠ 30)

2 Multifunction display (➠ 32)

3 Photosensor (for adapting the brightness of the instrument lighting)
– with anti-theft alarm (DWA) OE
DWA light-emitting diode
General information about the anti-theft alarm (DWA) (➠ 152)





Instrument cluster with Connectivity

– with Connectivity OE

1 Indicator and warning lights with Connectivity (➠ 54)

2 TFT display (➠ 55) (➠ 57)

3 Alarm system LED
Alarm (➠ 154)
– with Keyless Ride OE
Indicator light for the radio-operated key
Ignition with Keyless Ride (➠ 90).

4 Photosensor (for adapting the brightness of the instrument lighting)

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Indicator and warning lights

1 – with daytime riding light[OE]
Manual daytime riding light (➠ 98).

2 Deactivating the ABS function (➠ 109).

3 - with export to EU markets[NV]
Malfunction indicator lamp Emissions warning (➠ 41)

4 Turn indicators, left

5 Neutral

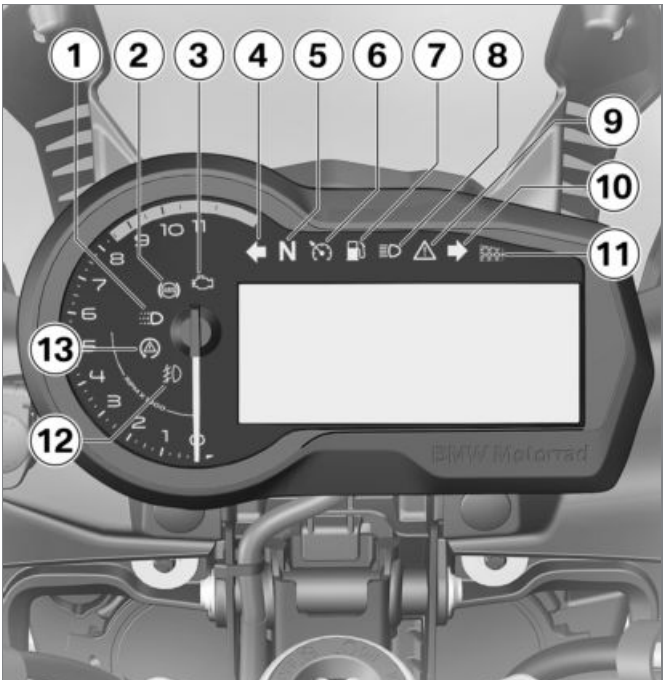
6 – with cruise control[OE]
Cruise-control system (➠ 124).

7 Fuel reserve warning light (➠ 50)

8 High-beam headlight

9 General warning light (➠ 33)

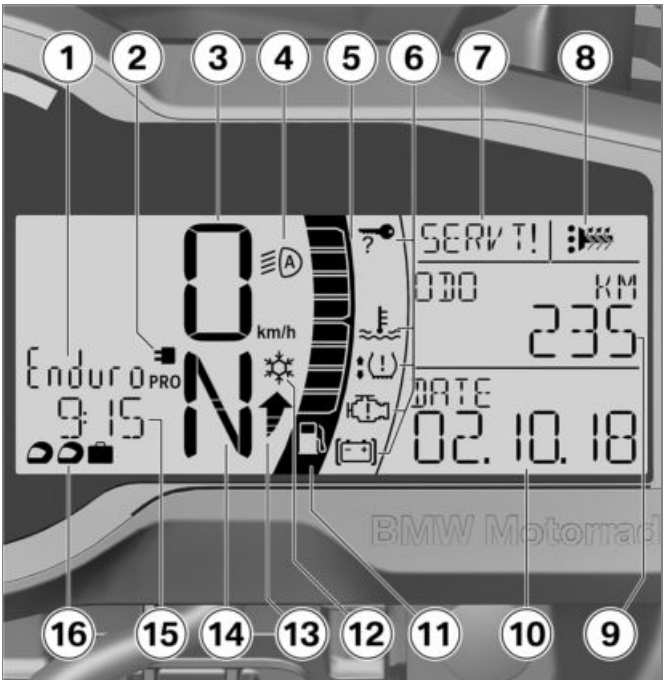
10 Turn indicators, right



11 Photosensor
– with anti-theft alarm (DWA) OE
DWA light-emitting diode
General information about the anti-theft alarm (DWA) (➠ 152)
12 Auxiliary headlights
13 ASC (➠ 48)
– with riding modes Pro OE
DTC (➠ 48)

Multifunction display

1 Riding modes (➠ 117)
2 Coding plug
– with riding modes Pro[OE]
Install the coding plug. (➠ 119).
3 Speedometer
4 Automatic daytime riding light (➠ 98)
5 Fuel gauge
6 Warning lights (see indicator light overview)
7 Warning messages (see indicator light overview)
8 Heated handlebar grips (➠ 126)
9 Upper display field (➠ 101)
10 Lower display field (➠ 102)
11 Fuel reserve indicator light (➠ 50)
12 Outside temperature warning (➠ 39)

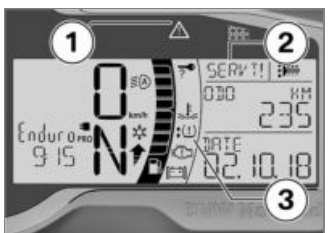


13 Recommendation to upshift (➠ 52)
14 Gear indicator
15 Time (➠ 105)
16 Dynamic ESA (➠ 114)

Warnings

Mode of presentation

Warnings are indicated by the corresponding warning lights.



Warnings that do not have warning lights of their own are indicated by 'general' warning light **1** showing in combination with a text warning at position **2**, such as LAMPF! or a warning symbol **3** in the multifunction display. The 'general' warning light shows red or yellow, depending on the urgency of the warning.

If two or more warnings occur at the same time, all the appropriate warning lights and warning symbols appear, alternating with warning words as applicable. The possible warnings are listed on the next pages.

Warnings, overview

Indicator and warning lights	Display text	Meaning
	 Ice crystal symbol is displayed.	Outside temperature warning (➠ 39)
 General warning light shows yellow.	 EWS warning symbol is displayed.	Electronic immobiliser active (➠ 39)
 General warning light shows yellow.	 appears on the display.	Radio-operated key out of range (➠ 40)
 General warning light shows yellow.	KEYLO! appears on the display.	Replace the battery of the radio-operated key (➠ 40)
 General warning light shows red.	 Symbol for vehicle voltage is displayed.	Vehicle voltage too low (➠ 40)
 General warning light shows red.	 Temperature symbol appears on the display.	Coolant temperature too high (➠ 41)
 The malfunction indicator lamp lights up.		Emissions warning (➠ 41)

Indicator and warning lights	Display text	Meaning
 General warning light shows yellow.	 Engine symbol appears on the display.	Engine in emergency-operation mode (➠ 42)
 General warning light shows yellow.	LAMPF!, LAMPR! or LAMPS! is displayed.	Bulb faulty (➠ 42)
	DWALO! appears on the display.	Anti-theft alarm battery weak (➠ 43)
 General warning light shows yellow.	DWA! appears on the display.	Anti-theft alarm battery flat (➠ 43)
 General warning light shows yellow.	 The tyre symbol is displayed with one or two arrows. The critical tyre pressure flashes.	Tyre pressure in limit range of the permitted tolerance (➠ 44)
 General warning light flashes red.	 The tyre symbol is displayed with one or two arrows. The critical tyre pressure flashes.	Tyre pressure outside the permitted tolerance (➠ 45)

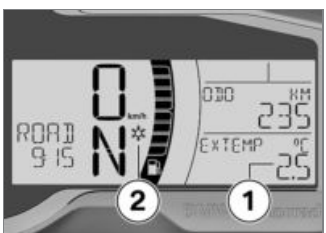
Indicator and warning lights	Display text	Meaning
 General warning light shows yellow.	 The tyre symbol is displayed with one or two arrows.	Sensor faulty or system fault (➠ 45)
	"−−" or "−− −−" is displayed.	Transmission fault (➠ 46)
 General warning light shows yellow.	RDC! appears on the display.	Battery for tyre pressure sensor weak (➠ 46)
 ABS indicator and warning light flashes.		ABS self-diagnosis not completed (➠ 47)
 ABS indicator and warning light shows.		ABS fault (➠ 47)
 ABS indicator and warning light shows.		ABS deactivated (➠ 47)
 ASC indicator and warning light flashing quickly.		ASC intervention (➠ 48)

Indicator and warning lights	Display text	Meaning
 DTC indicator and warning light flashes quickly.		DTC intervention (➠ 48)
 ASC indicator and warning light flashing slowly.		ASC self-diagnosis not completed (➠ 48)
 DTC indicator and warning light flashes slowly.		DTC self-diagnosis not completed (➠ 48)
 ASC indicator and warning light shows.		ASC switched off (➠ 49)
 DTC indicator and warning light comes on.		DTC switched off (➠ 49)
 ASC indicator and warning light shows.		ASC fault (➠ 49)
 DTC indicator and warning light comes on.		DTC fault (➠ 49)

Indicator and warning lights	Display text	Meaning
 lights up		Fuel down to reserve (➠ 50)
	SOS! SOS ERROR is displayed.	Emergency call fault (➠ 51)

Ambient temperature

When the motorcycle is at a standstill, the heat of the engine can falsify the ambient-temperature reading. If the effect of the engine's heat becomes excessive, "--" temporarily appears on the display.



At ambient temperatures below 3 °C, there is a risk of ice forming. The display will switch over to outside temperature display **1** automatically and the value displayed will flash, when the temperature falls below this temperature for the first time, irrespective of the actual display setting.

In addition, the ice crystal symbol **2** is shown.

⚠ WARNING

Risk of black ice also applicable at over 3 °C

Risk of accident

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

Outside temperature warning

Ice crystal symbol is displayed.

Possible cause:

The air temperature measured at the motorcycle is lower than 3 °C.

⚠ WARNING

Risk of black ice also applicable at over 3 °C

Risk of accident

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

Electronic immobiliser active

General warning light shows yellow.


The EWS warning symbol is displayed.

Possible cause:

The key being used is not authorised for starting, or communication between key and engine electronics is disrupted.

- Remove all other vehicle keys from the same ring as the ignition key.
- Use the reserve key.
- Have the defective key replaced, preferably by an authorised BMW Motorrad Retailer.

Radio-operated key out of range

– with Keyless Ride OE


General warning light shows yellow.


appears on the display.

Possible cause:

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

- Check the battery in the radio-operated key.

– with Keyless Ride OE

- Replace the battery of the radio-operated key (➠ 92).
- Use the reserve key to continue your journey.

– with Keyless Ride OE

- Battery of the radio-operated key is flat or the key has been lost (➠ 91).
- Remain calm if the warning symbol appears while you are riding. You can continue your journey; the engine will not switch off.
- Have the defective radio-operated key replaced by an authorised BMW Motorrad Retailer.

Replace the battery of the radio-operated key


General warning light shows yellow.

KEYLO! appears on the display.

Possible cause:

- The integral battery in the radio-operated key has lost a significant proportion of its original capacity. There is no assurance of how long the R/C key can remain operational.

– with Keyless Ride OE

- Replace the battery of the radio-operated key (➠ 92).

Vehicle voltage too low


General warning light shows red.


Symbol for vehicle voltage is displayed.

WARNING

Failure of the vehicle systems

Risk of accident

- Do not continue your journey.◀

The battery will not be charged. By continuing to drive on, the vehicle electronics discharge the battery.

NOTICE

The fuse for the alternator regulator can blow if the 12 V battery is installed incorrectly or if the terminals are swapped (e.g. when using a starting aid).◀

Possible cause:

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

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

Coolant temperature too high



General warning light shows red.

Temperature symbol appears on the display.

ATTENTION

Riding with overheated engine

Engine damage

- Compliance with the information set out below is essential.◀

Possible cause:

The coolant level is too low.

- Check coolant level (➠ 207).

If the coolant level is too low:

- Topping up coolant (➠ 208).

Possible cause:

The coolant temperature is too high.

- If possible, ride in the part-load range to cool down the engine.
- In traffic jams, switch off the engine, but leave the ignition switched on so that the radiator fan continues to operate.
- If the coolant temperature is frequently too high, have the fault rectified as soon as possible by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

Emissions warning



The malfunction indicator lamp lights up.

Possible cause:

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

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

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

Engine in emergency-operation mode


General warning light shows yellow.


Engine symbol appears on the display.

WARNING

Unusual ride characteristics when engine running in emergency-operation mode

Risk of accident

- Avoid accelerating sharply and overtaking.◀

Possible cause:

The engine control unit has diagnosed a fault. In exceptional cases, the engine stops and refuses to start. Otherwise, the engine runs in emergency operating mode.

- You can continue to ride, but bear in mind that the usual engine performance might not be available.
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

Bulb faulty


General warning light shows yellow.

`LAMP!` is displayed:

– `LAMPF!`: low-beam headlight, high-beam, side light or front turn indicator faulty.

– with daytime riding light[OE]

– `LAMPF!`: additionally: daytime riding light faulty.◁

– `LAMPR!`: brake light, rear light, rear indicator light or license plate light faulty.

– `LAMPS!`: several bulbs faulty.

WARNING

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

Safety risk

- Replace defective bulbs as soon as possible; always carry a complete set of spare bulbs if possible.◀

Possible cause:

Light source faulty.

- Locate faulty light sources by visual inspection.
- Replacing the LED for low-beam headlight and high beam (➠ 221).

- Replacing the LED for side light (➠ 221).
- Replacing LED for brake light and rear light (➠ 221).
- Replacing bulbs for front and rear turn indicators (➠ 221).

– with LED additional headlight OA

- Replacing the additional headlight (➠ 224).

Anti-theft alarm battery weak

– with anti-theft alarm (DWA) OE

DWALO! appears on the display.

NOTICE

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

Possible cause:

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

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

Anti-theft alarm battery flat

– with anti-theft alarm (DWA) OE



General warning light shows yellow.

DWA! appears on the display.

NOTICE

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

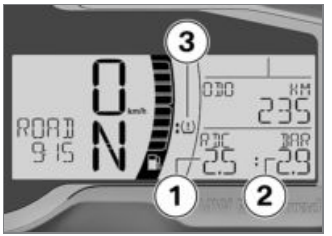
Possible cause:

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

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

Tyre pressure

– with tyre pressure control (RDC) OE



The left value **1** indicates the filling pressure of the front wheel; the right value **2** indicates the filling pressure of the rear wheel. "-- --" appears directly after the ignition is switched on. The sensors do not transmit tyre pressure values until the vehicle speed first exceeds 30 km/h. The tyre pressure readings displayed are based on a tyre air temperature of 20 °C.

If the **3** symbol also shows, this is a warning. The critical tyre pressure flashes.

If the value in question is close to the limit of the permissible tolerance range, the reading is accompanied by the 'General' warning light showing yellow. If the tyre pressure registered by the sensor is outside the permissible tolerance range, the 'General' warning light flashes red.

For further information on BMW Motorrad tyre pressure control, see page (➠ 192).

Tyre pressure in limit range of the permitted tolerance

– with tyre pressure control (RDC)[OE]

General warning light shows yellow.

The tyre symbol is displayed with one or two arrows. The critical tyre pressure flashes.

The up arrow indicates a pressure problem on the front wheel, the down arrow indicates a pressure problem on the rear wheel.
Possible cause:

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

- Correct the tyre pressure as stated on the inside cover of the Rider's Manual.

NOTICE

Before adjusting the tyre pressure, observe the information on temperature compensation and pressure adaptation in the section entitled "Engineering details":◀

» Temperature compensation (➠ 193)

Tyre pressure outside the permitted tolerance

– with tyre pressure control (RDC)[OE]


General warning light flashes red.


The tyre symbol is displayed with one or two arrows. The critical tyre pressure flashes.

WARNING

Tyre pressure outside the permitted tolerance.

Risk of accident, degradation of the vehicle's driving characteristics.

- Adapt your style of riding accordingly.◀

The up arrow indicates a pressure problem on the front wheel, the down arrow indicates a pressure problem on the rear wheel.

Possible cause:

Measured tyre pressure is outside permitted tolerance.

- Check the tyre for damage and to ascertain whether the vehicle can be ridden with the tyre in its present condition.

If the vehicle can be ridden with the tyre in its present condition:

- Correct the tyre pressure at the earliest possible opportunity.

NOTICE

You can deactivate RDC warnings for riding in off-road mode.◀

NOTICE

Before adjusting the tyre pressure, observe the information on temperature compensation and pressure adaptation in the section entitled "Engineering details":◀

» Temperature compensation (▶ 193)

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

If you are unsure whether the vehicle can be ridden with the tyre in its present condition:

- Do not continue your journey.
- Notify the breakdown service.

Sensor faulty or system fault

– with tyre pressure control (RDC)[OE]


General warning light shows yellow.


The tyre symbol is displayed with one or two arrows.

Possible cause:

Wheels not equipped with RDC sensors have been fitted.

- Fit wheels and tyres equipped with RDC sensors.

Possible cause:

One or two RDC sensors have failed or there is a system fault.

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

Transmission fault

– with tyre pressure control (RDC)[OE]

"--" or "-- --" is displayed.

Possible cause:

The vehicle has not reached the minimum speed (➠ 192).

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

- Observe the RDC display at higher speeds.

 A permanent fault is present only when the general warning light also lights up.

Under these circumstances:

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

Possible cause:

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

- Observe the RDC displays in other surrounding areas.

 A permanent fault is present only when the general warning light also lights up.

Under these circumstances:

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

Battery for tyre pressure sensor weak

– with tyre pressure control (RDC)[OE]

 General warning light shows yellow.

RDC! appears on the display.

NOTICE

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

Possible cause:

The tyre pressure sensor battery no longer provides its full capacity. The tyre pressure monitoring function will be available for a limit time only.

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

ABS self-diagnosis not completed

 ABS indicator and warning light flashes.

Possible cause:

The ABS function is not available, because self-diagnosis did not complete. The motorcycle has to move forward a few metres for the wheel sensors to be tested.

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

ABS fault

 ABS indicator and warning light shows.

Possible cause:

– with riding modes Pro OE

The ABS Pro control unit has detected a fault. The ABS Pro function is not available. The ABS function is still available. ABS provides support only for braking in straight-ahead driving.

- You can continue to ride. Take note of the more detailed information on certain situations that can lead to an ABS Pro fault message (➠ 185).
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

Possible cause:

The ABS control unit has detected a fault.

- You can continue to ride. Bear in mind that the ABS function is not available. Take note of the more detailed information on certain situations that can lead to an ABS fault message (➠ 185).
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

ABS deactivated

 ABS indicator and warning light shows.

Possible cause:
The rider has switched off the ABS system.
- Activating the ABS function (➠ 110).

ASC intervention

– without riding modes Pro[OE]


ASC indicator and warning light flashing quickly.
The ASC has detected a degree of instability at the rear wheel and has intervened to reduce torque. The indicator and warning light flashes longer than the ASC intervention lasts. This affords the rider visual feedback on control intervention even after the critical situation has been dealt with.

DTC intervention

– with riding modes Pro[OE]


DTC indicator and warning light flashes quickly.
The DTC has detected a degree of instability at the rear wheel and has intervened to reduce torque. The indicator and warning light flashes longer than the DTC intervention lasts. This affords the rider visual feedback on control intervention even after the critical situation has been dealt with.

ASC self-diagnosis not completed

– without riding modes Pro[OE]


ASC indicator and warning light flashing slowly.

Possible cause:
Self-diagnosis did not complete, so the ASC function is not available. The engine must be running and the motorcycle must reach a speed of at least 5 km/h in order for ASC self-diagnosis to complete.
- Pull away slowly. Bear in mind that the ASC function is not available until self-diagnosis has completed.

DTC self-diagnosis not completed

– with riding modes Pro[OE]


DTC indicator and warning light flashes slowly.

Possible cause:

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

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

ASC switched off

– without riding modes Pro OE



ASC indicator and warning light shows.

Possible cause:

The rider has switched off the ASC system.

- Activate ASC.

DTC switched off

– with riding modes Pro OE



DTC indicator and warning light comes on.

Possible cause:

The rider has switched off the DTC system.

- DTC Switching on (➠ 113).

ASC fault

– without riding modes Pro OE



ASC indicator and warning light shows.

Possible cause:

The ASC control unit has detected a fault. The ASC function is no longer available.

- You can continue to ride. Bear in mind that the ASC function is not available. Take note of the more detailed information on situations that can lead to an ASC fault (➠ 187).
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

DTC fault

– with riding modes Pro OE



DTC indicator and warning light comes on.

Possible cause:

The DTC control unit has detected a fault.

- Bear in mind that the DTC function is not available or the functionality is subject to certain restrictions.
- You can continue to ride. Take note of the more detailed in-

formation on situations that can lead to a DTC fault (➠ 188).
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

Fuel down to reserve

Warning light for fuel down to reserve shows.

⚠ WARNING

Irregular engine operation or engine shutdown due to lack of fuel

Risk of accident, damage to catalytic converter

- Do not run the fuel tank dry.◀

Possible cause:

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

Reserve fuel
approx. 3.5 l

- Refuelling (➠ 177).

Fuel reserve

The fuel quantity remaining in the fuel tank once the fuel reserve indicator light switches on depends on the riding dynamics. The more the fuel moves around in the fluid tank (caused by frequent changes in lean angle, frequent braking and accelerating), the harder it is to determine the fuel reserve. For this reason, it is not possible to accurately state the fuel reserve volume.

The range is displayed automatically once the fuel warning light is switched on. The distance that can still be travelled using the reserve quantity depends on the style of riding (consumption) and the amount of fuel remaining at the time the light came on (see explanation above).

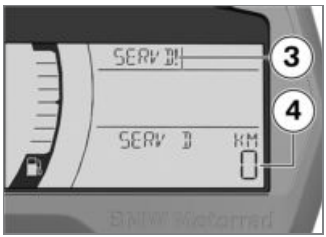
After a refuelling stop, the distance counter for reserve fuel is reset if the amount of fuel in the tank is greater than the reserve quantity.

Service-due indicator



The SERVT! **1** message and the service date **2** are displayed if the service is due within one month. This reading appears

briefly after the Pre-Ride-Check completes.



The symbol SERVD! **3** and the remaining distance **4** are displayed if the service is due within the next 1000 kilometres and is counted down in intervals of 100 kilometres. This reading appears briefly after the Pre-Ride-Check completes.

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

The SERVD! or SERVT! messages are displayed permanently.

NOTICE

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

Emergency call fault

– with intelligent emergency call OE

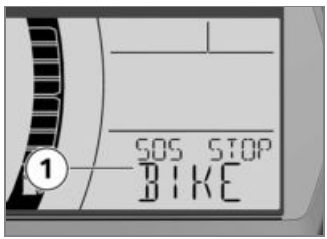
SOS! SOS ERROR is displayed.
Possible cause:

The control unit for emergency call has detected a fault. No emergency call is possible.

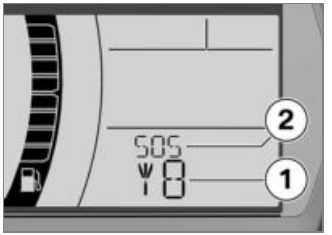
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

Emergency call display

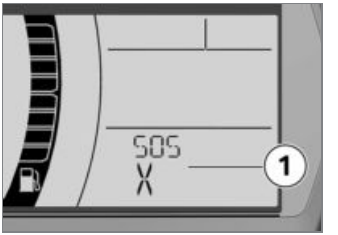
– with intelligent emergency call OE



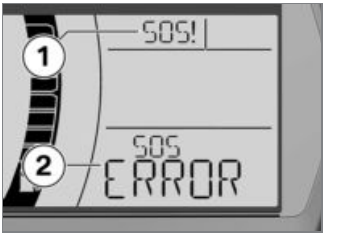
Message **1** is displayed if an emergency call is triggered manually by the rider while riding..



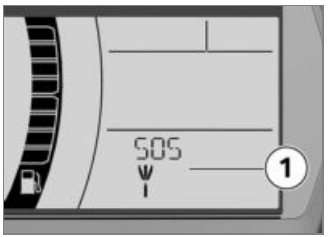
A countdown **1** is displayed below the SOS **2** message while the connection is being established.



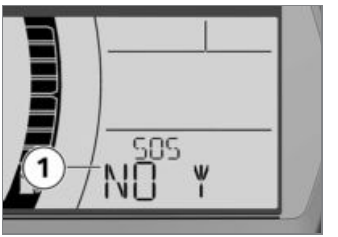
The message **1** is displayed if it was not possible to establish a connection.



The messages SOS!| **1** and SOS ERROR **2** are displayed if emergency calls are not possible as a result of a technical fault.



The message **1** is displayed once a connection has been established.



The symbol **1** is displayed if there is no mobile phone signal.

Recommendation to upshift

The upshift recommendation must be activated in the display settings (➠ 103).



The upshift recommendation **1** signals the economically best point in time for upshift.

Indicator and warning lights with Connectivity

– with Connectivity[OE]

1 Turn indicators, left
Operating the turn indicators (➠ 101).

2 High-beam headlight (➠ 97)

3 General warning light (➠ 58)

4 Turn indicators, right

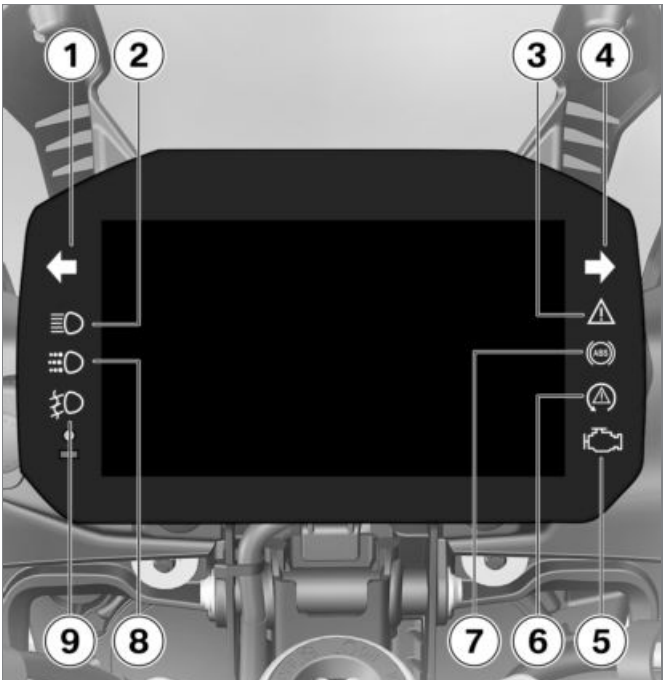
5 - with export to EU markets[NV]
Malfunction indicator lamp
Emissions warning (➠ 72)

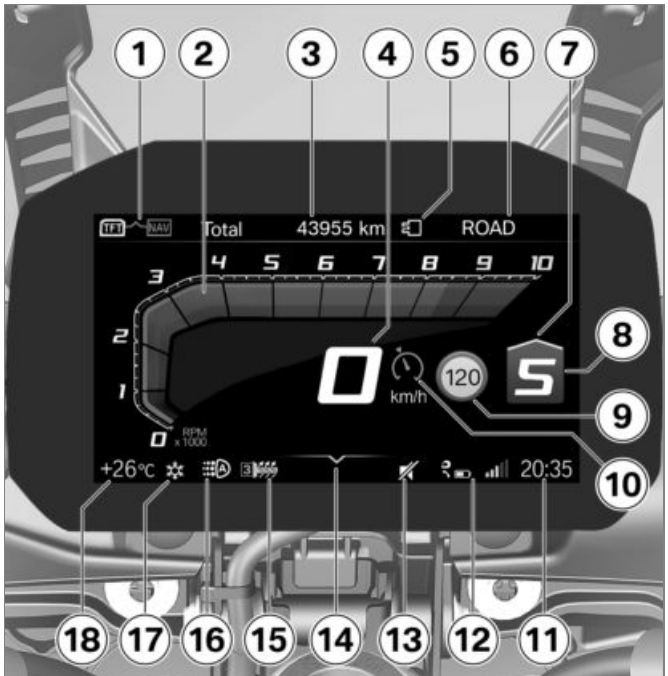
6 ASC (➠ 48)
– with riding modes Pro[OE]
DTC (➠ 48)

7 ABS (➠ 109)

8 – with daytime riding light[OE]
Manual daytime riding light (➠ 98).

9 Auxiliary headlights



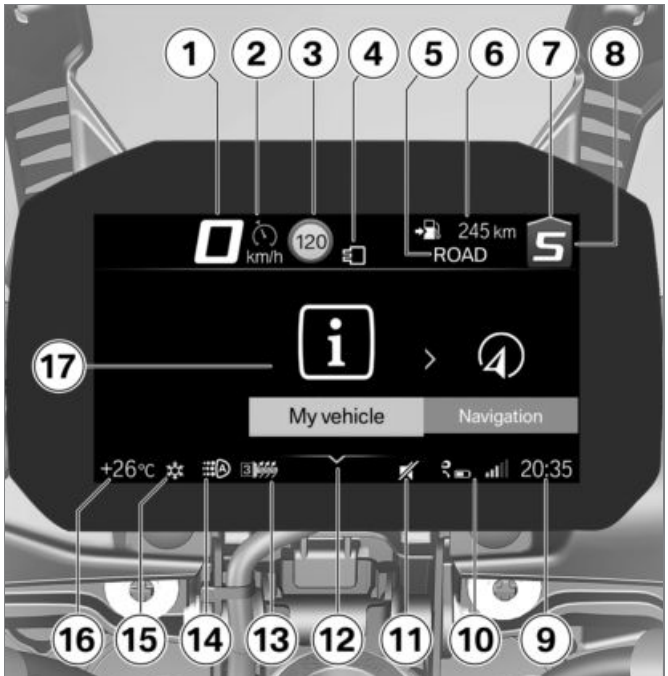


TFT display in Pure Ride view

– with Connectivity[OE]

1 Changing the operating focus (➠ 135)
2 Rev. counter (➠ 137)
3 Driver info. status line (➠ 136)
4 Speedometer
5 Coding plug
– with riding modes Pro[OE]
Install the coding plug. (➠ 119).
6 Riding mode (➠ 117)
7 Recommendation to upshift (➠ 138)
8 Gear indicator; "N" indicates neutral.
9 Speed Limit Info (➠ 137)
10 – with cruise control[OE]
Cruise-control system (➠ 124).
11 Clock (➠ 139)

12 Connection status (➠ 141)
13 Muting (➠ 138)
14 Operator help
15 Heating stages, handlebar grips (➠ 126)
16 Automatic daytime riding light (➠ 99)
17 Outside temperature warning (➠ 68)
18 Ambient temperature



TFT display in view menu

– with Connectivity[OE]

1 Speedometer
2 – with cruise control[OE] Cruise-control system (➠ 124).
3 Speed Limit Info (➠ 137)
4 Coding plug – with riding modes Pro[OE] Install the coding plug. (➠ 119).
5 Riding mode (➠ 117)
6 Driver info. status line (➠ 136)
7 Recommendation to upshift (➠ 138)
8 Gear indicator; "N" indicates neutral.
9 Clock
10 Connection status
11 Muting (➠ 138)
12 Operator help

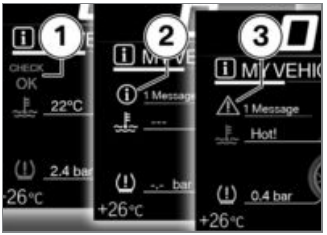
13 Heating stages, handlebar grips (➠ 126)
14 Automatic daytime riding light (➠ 99)
15 Outside temperature warning (➠ 68)
16 Ambient temperature
17 Menu section

Indicator lights with Connectivity

Mode of presentation

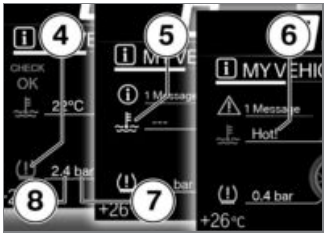
Warnings are indicated by the corresponding warning lights. Warnings are displayed by the general warning light in conjunction with a dialogue box on the TFT display. The 'general' warning light shows yellow or red, depending on the urgency of the warning.

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



Check Control display

The messages on the display are shown in different ways. Different colours and symbols are used depending on priority:
– Green CHECK OK **1**: no message, optimum values.
– White circle with small "i" **2**: information.
– Yellow warning triangle **3**: warning message, value not ideal.
– Red warning triangle **3**: warning message, critical value



Value display

The symbols **4** are shown in different ways. Different colours are used depending on the evaluation. Texts **6** are also used on the display instead of numerical values **8** with units **7**:

Colour of the symbol

- Green: (OK) Current value is ideal.
- 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. Dashes **5** are displayed instead of the value.

NOTICE

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



Check control dialogue box

Messages are given in the form of a check control dialogue box **1**.

- If there are multiple check control messages of equal priority, the messages alternate in the order in which they occurred until they are acknowledged.
- If symbol **2** is actively displayed, it can be acknowledged by tilting the Multi-Controller to the left.
- Check Control messages are attached dynamically to the pages in the Vehicle menu as additional tabs (➠ 133). As

long as the problem persists, the message can be called up again.

Warnings, overview

Indicator and warning lights	Display text	Meaning
	 Ice crystal symbol is displayed.	Outside temperature warning (➠ 68)
 General warning light shows yellow.	 `Remote key not in range.`	Radio-operated key out of range (➠ 68)
 General warning light shows yellow.	 `Remote key battery at 50%.`	Replace the battery of the radio-operated key (➠ 69)
	 `Remote key battery weak.`	
 General warning light shows yellow.	 is displayed in yellow.	Vehicle voltage too low (➠ 69)
	 `Vehicle voltage low.`	
 General warning light shows red.	 is displayed in red.	Vehicle voltage critical (➠ 70)
	 `Vehicle voltage critical!`	

Indicator and warning lights	Display text	Meaning
 General warning light shows yellow.	 The faulty light source is displayed.	Bulb faulty (➠ 70)
	 `Alarm system battery weak.`	Anti-theft alarm battery weak (➠ 71)
 General warning light shows yellow.	 `Alarm system battery empty.`	Anti-theft alarm battery flat (➠ 71)
 General warning light shows red.	 `Coolant temperature too high!`	Coolant temperature too high (➠ 72)
 The malfunction indicator lamp lights up.	 `Engine!`	Emissions warning (➠ 72)
General warning light shows yellow.	`No communication with engine control.`	Engine control failed (➠ 72)
 General warning light shows yellow.	 `Fault in the engine control.`	Engine in emergency-operation mode (➠ 73)
 General warning light flashes yellow.	 `Serious fault in the engine control!`	Severe fault in the engine control (➠ 73)

Indicator and warning lights	Display text	Meaning
 General warning light shows yellow.	 is displayed in yellow.	Tyre pressure in limit range of the permitted tolerance (➠ 75)
	 `Tyre pressure is not at set-point.`	
 General warning light flashes red.	 is displayed in red.	Tyre pressure outside the permitted tolerance (➠ 75)
	 `Tyre pressure is not at set-point.`	
	 `Tyre press. control. Loss of pressure.`	
	 `"---"`	Transmission fault (➠ 76)
 General warning light shows yellow.	 `"---"`	Sensor faulty or system fault (➠ 77)
 General warning light shows yellow.	 `RDC sensor battery weak.`	Battery for tyre pressure sensor weak (➠ 77)

Indicator and warning lights	Display text	Meaning
	 Drop sensor faulty.	Drop sensor defective (➠ 78)
	 Intell. emerg. call failure.	Emergency call function restricted (➠ 78)
	 Side stand monitoring faulty.	Side stand monitoring is faulty (➠ 78)
 ABS indicator and warning light flashes.		ABS self-diagnosis not completed (➠ 47)
 ABS indicator and warning light shows.	 Off!	ABS deactivated (➠ 78)
	 ABS deactivated.	
 ABS indicator and warning light shows.	 Limited ABS availability!	ABS fault (➠ 79)
 ABS indicator and warning light shows.	 ABS failure!	ABS failed (➠ 79)

Indicator and warning lights	Display text	Meaning
 ABS indicator and warning light shows.	 `ABS Pro failure!`	ABS Pro failed (➠ 79)
 ASC indicator and warning light flashing quickly.		ASC intervention (➠ 48)
 ASC indicator and warning light flashing slowly.		ASC self-diagnosis not completed (➠ 48)
 ASC indicator and warning light shows.	 `Off!`	ASC switched off (➠ 80)
	 `Traction control deactivated.`	
 ASC indicator and warning light shows.	 `Traction control failure!`	ASC fault (➠ 80)
 DTC indicator and warning light flashes quickly.		DTC intervention (➠ 48)

Indicator and warning lights	Display text	Meaning
 DTC indicator and warning light flashes slowly.		DTC self-diagnosis not completed (➠ 48)
 DTC indicator and warning light comes on.	 `Off!`	DTC switched off (➠ 81)
	 `Traction control deactivated.`	
 DTC indicator and warning light comes on.	 `Traction control failure!`	DTC fault (➠ 81)
 General warning light shows yellow.	 `Spring strut adjustment faulty!`	D-ESA fault (➠ 82)
	 Fuel reserve reached. Go to a filling station soon	Fuel down to reserve (➠ 82)
	 The gear indicator flashes.	Gear not trained (➠ 82)

Indicator and warning lights	Display text	Meaning
 Turn signal indicator light flashes green.		Hazard warning lights system is switched on (➠ 83)
 Turn signal indicator light flashes green.		
	 is displayed in white.	Service due (➠ 83)
	`Service due!`	
 General warning light shows yellow.	 is displayed in yellow.	Service-due date has passed (➠ 84)
	`Service overdue!`	

Ambient temperature

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

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

There is a risk of black ice if the outside temperature falls below the following limit value.

Limit value for the ambient temperature
approx. 3 °C

Once the temperature has fallen below that value, the outside temperature display along with a ice crystal symbol flashes in the status line on the TFT display.

Outside temperature warning

Ice crystal symbol is displayed.

Possible cause:

The air temperature measured at the motorcycle is lower than 3 °C.

WARNING

Risk of black ice also applicable at over 3 °C

Risk of accident

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

Radio-operated key out of range

– with Keyless Ride OE

General warning light shows yellow.

`Remote key not in range. Do not stop engine. Not possible to restart the engine.`

Possible cause:

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

- Check the battery in the radio-operated key.

– with Keyless Ride OE

- Replace the battery of the radio-operated key (➠ 92).
- Use the reserve key to continue your journey.

– with Keyless Ride OE

- Battery of the radio-operated key is flat or the key has been lost (➠ 91).

- If a check control dialogue box appears during the journey, remain calm. You can continue your journey; the engine will not switch off.
- Have the defective radio-operated key replaced by an authorised BMW Motorrad Retailer.

Replace the battery of the radio-operated key


General warning light shows yellow.


Remote key battery at 50%. No functional impairment.


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

Possible cause:

- The integral battery in the radio-operated key has lost a significant proportion of its original capacity. There is no assurance of how long the R/C key can remain operational.

– with Keyless Ride[OE]

- Replace the battery of the radio-operated key (➠ 92).

Vehicle voltage too low


General warning light shows yellow.


is displayed in yellow.


Vehicle voltage low. Switch off unnecessary consumers.

WARNING

Failure of the vehicle systems

Risk of accident

- Do not continue your journey.◀

The battery will not be charged. By continuing to drive on, the vehicle electronics discharge the battery.

NOTICE

The fuse for the alternator regulator can blow if the 12 V battery is installed incorrectly or if the terminals are swapped (e.g. when using a starting aid).◀

Possible cause:

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

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

Vehicle voltage critical


General warning light shows red.


is displayed in red.


Vehicle voltage critical! Consumers have been switched off. Check battery condition.

WARNING

Failure of the vehicle systems

Risk of accident

- Do not continue your journey.◀

The battery will not be charged. By continuing to drive on, the vehicle electronics discharge the battery.

NOTICE

The fuse for the alternator regulator can blow if the 12 V battery is installed incorrectly or if the terminals are swapped (e.g. when using a starting aid).◀

Possible cause:

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

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

Bulb faulty


General warning light shows yellow.


The faulty light source is displayed:


High beam faulty!


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


Low-beam headlight faulty!


Front side light faulty!

– with daytime riding light OE


Daytime riding light faulty!◁


Tail light faulty!

Brake light faulty!


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


Number plate light faulty!

– Have it checked by a specialist workshop.

WARNING

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

Safety risk

- Replace defective bulbs as soon as possible; always carry a complete set of spare bulbs if possible.◀

Possible cause:

Light source faulty.

- Locate faulty light sources by visual inspection.
- Replacing the LED for low-beam headlight and high beam (➠ 221).
- Replacing the LED for side light (➠ 221).
- Replacing LED for brake light and rear light (➠ 221).
- Replacing bulbs for front and rear turn indicators (➠ 221).
- with LED additional headlight OA
- Replacing the additional headlight (➠ 224).

Anti-theft alarm battery weak

– with anti-theft alarm (DWA) OE



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

NOTICE

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

Possible cause:

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

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

Anti-theft alarm battery flat

– with anti-theft alarm (DWA) OE



General warning light shows yellow.



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

NOTICE

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

Possible cause:

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

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

Coolant temperature too high


General warning light shows red.


`Coolant temperature too high! Check coolant level. Continue under part. load to cool down.`

ATTENTION

Riding with overheated engine

Engine damage

- Compliance with the information set out below is essential.◀

Possible cause:

The coolant level is too low.

- Check coolant level (➠ 207).

If the coolant level is too low:

- Topping up coolant (➠ 208).

Possible cause:

The coolant temperature is too high.

- If possible, ride in the part-load range to cool down the engine.
- In traffic jams, switch off the engine, but leave the ignition switched on so that the radiator fan continues to operate.
- If the coolant temperature is frequently too high, have the fault rectified as soon as possible by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

Emissions warning


The malfunction indicator lamp lights up.


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

Possible cause:

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

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

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

Engine control failed


General warning light shows yellow.


`No communication with engine control. Multiple sys. affected. Ride`

carefully to the next specialist workshop.

Engine in emergency-operation mode


General warning light shows yellow.


Fault in the engine control. Riding at mod. speed pos. Ride carefully to next specialist workshop.

WARNING

Unusual ride characteristics when engine running in emergency-operation mode

Risk of accident

- Avoid accelerating sharply and overtaking.◀

Possible cause:

The engine control unit has diagnosed a fault. In exceptional cases, the engine stops and refuses to start. Otherwise, the engine runs in emergency operating mode.

- You can continue to ride, but bear in mind that the usual engine performance might not be available.
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

Severe fault in the engine control


General warning light flashes yellow.


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

WARNING

Engine damage when running in emergency-operation mode

Risk of accident

- Ride slowly, avoid accelerating sharply and overtaking.
- If possible, have the vehicle picked up and have the fault rectified by a specialist workshop, preferably an authorised BMW Motorrad Retailer.◀

Possible cause:

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

- Avoid high load and rpm ranges if possible.
- Have the fault rectified as quickly as possible by a specialist workshop, preferably

an authorised BMW Motorrad Retailer.

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

Tyre pressure

– with tyre pressure control (RDC)[OE]

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



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

The pressure difference is displayed via the actual and target tyre pressure.

Only dashes are displayed immediately after the ignition is switched on. The transmission of the tyre pressure values begins only after the first time the following minimum speed has been exceeded:

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

If the tyre symbol is additionally displayed in yellow or red, this is a warning. The pressure difference is highlighted with a exclamation point in the same colour.

 If the value in question is close to the limit of the permissible tolerance range, the 'General' warning light also lights up in yellow.

 If the tyre pressure registered by the sensor is outside the permissible tolerance range , the 'General' warning light flashes red.

For further information about the BMW Motorrad RDC, see chapter "Engineering details" from page (➠ 192).

Tyre pressure in limit range of the permitted tolerance

– with tyre pressure control (RDC)[OE]

 General warning light shows yellow.

 is displayed in yellow.

 `Tyre pressure is not at setpoint. Check tyre pressure.`

Possible cause:

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

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

» Temperature compensation (➠ 193)

» Pressure adaptation (➠ 193)

» Find the correct tyre pressures in the following places:

– On the back cover of the rider's manual

– Instrument cluster in the `TYRE PRESSURE` view

– Sign under the seat

Tyre pressure outside the permitted tolerance

– with tyre pressure control (RDC)[OE]

 General warning light flashes red.

 is displayed in red.

 `Tyre pressure is not at setpoint. Stop immediately! Check tyre pressure.`

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

WARNING

Tyre pressure outside the permitted tolerance.

Risk of accident, degradation of the vehicle's driving characteristics.

- Adapt your style of riding accordingly.◀

Possible cause:

Measured tyre pressure is outside permitted tolerance.

- Check the tyre for damage and to ascertain whether the vehicle can be ridden with the tyre in its present condition.

If the vehicle can be ridden with the tyre in its present condition:

- Correct the tyre pressure at the earliest possible opportunity.
- Before adjusting the tyre pressure, observe the information on temperature compensation and pressure adaptation in the section entitled "Engineering details":

» Temperature compensation (⇒ 193)

» Pressure adaptation (⇒ 193)

» Find the correct tyre pressures in the following places:

– On the back cover of the rider's manual

– Instrument cluster in the TYRE PRESSURE view

– Sign under the seat

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

NOTICE

You can deactivate RDC warnings for riding in off-road mode.◀

If you are unsure whether the vehicle can be ridden with the tyre in its present condition:

- Do not continue your journey.
- Notify the breakdown service.

Transmission fault

– with tyre pressure control (RDC)[OE]



"---"

Possible cause:

The vehicle has not reached the minimum speed (⇒ 192).

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

- Observe the RDC display at higher speeds.



A permanent fault is present only when the general warning light also lights up.

Under these circumstances:

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

Possible cause:

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

- Observe the RDC displays in other surrounding areas.

 A permanent fault is present only when the general warning light also lights up.

Under these circumstances:

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

Sensor faulty or system fault

– with tyre pressure control (RDC) OE

 General warning light shows yellow.

 "---"

Possible cause:

Wheels not equipped with RDC sensors have been fitted.

- Fit wheels and tyres equipped with RDC sensors.

Possible cause:

One or two RDC sensors have failed or there is a system fault.

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

Battery for tyre pressure sensor weak

– with tyre pressure control (RDC) OE

 General warning light shows yellow.

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

NOTICE

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

Possible cause:

The tyre pressure sensor battery no longer provides its full capacity. The tyre pressure monitoring function will be available for a limit time only.

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

Drop sensor defective



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

Possible cause:

The drop sensor is not available.

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

Emergency call function restricted

– with intelligent emergency call OE



Intell. emerg. call failure. Make an appointment at a specialist workshop.

Possible cause:

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

- Observe information on operating the intelligent emergency call from page (➠ 94).
- Seek the advice of a specialist workshop, preferably an authorised BMW Motorrad Retailer.

Side stand monitoring is faulty



Side stand monitoring faulty. To avoid breakdown do not stop engine. Have checked by spec. workshp.

Possible cause:

The side-stand switch or its wiring are damaged.

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

ABS self-diagnosis not completed



ABS indicator and warning light flashes.

Possible cause:

The ABS function is not available, because self-diagnosis did not complete. The motorcycle has to move forward a few metres for the wheel sensors to be tested.

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

ABS deactivated



ABS indicator and warning light shows.



Off!



ABS deactivated.

Possible cause:

The rider has switched off the ABS system.

- Activating the ABS function (➠ 110).

ABS fault



ABS indicator and warning light shows.



`Limited ABS availability! Riding at mod. speed pos. Ride carefully to next specialist workshop.`

Possible cause:

The ABS control unit has detected a fault. The ABS function is restricted.

- You can continue to ride. Take note of the more detailed information on certain situations that can lead to an ABS fault message (➠ 185).
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

ABS failed



ABS indicator and warning light shows.



`ABS failure! Riding at mod. speed pos. Ride carefully to next specialist workshop.`

Possible cause:

The ABS control unit has detected a fault.

- You can continue to ride. Bear in mind that the ABS function is not available. Take note of the more detailed information on certain situations that can lead to an ABS fault message (➠ 185).
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

ABS Pro failed

– with riding modes Pro[OE]



ABS indicator and warning light shows.



`ABS Pro failure! Riding at mod. speed pos. Ride carefully to next specialist workshop.`

Possible cause:

The ABS Pro control unit has detected a fault. The ABS Pro function is not available. The ABS function is still available. ABS provides support only for braking in straight-ahead driving.

- You can continue to ride. Take note of the more detailed information on certain situations that can lead to an ABS Pro fault message (➠ 185).
- Have the fault rectified as quickly as possible by a

specialist workshop, preferably an authorised BMW Motorrad Retailer.

ASC intervention

– without riding modes Pro[OE]

 ASC indicator and warning light flashing quickly.

The ASC has detected a degree of instability at the rear wheel and has intervened to reduce torque. The indicator and warning light flashes longer than the ASC intervention lasts. This affords the rider visual feedback on control intervention even after the critical situation has been dealt with.

ASC self-diagnosis not completed

– without riding modes Pro[OE]

 ASC indicator and warning light flashing slowly.

Possible cause:

Self-diagnosis did not complete, so the ASC function is not available. The engine must be running and the motorcycle must reach a speed of at least 5 km/h in order for ASC self-diagnosis to complete.

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

ASC switched off

 ASC indicator and warning light shows.

– with Connectivity[OE]

 `Off!`

– with Connectivity[OE]

 `Traction control deactivated.`

Possible cause:

The rider has switched off the ASC system.

– without riding modes Pro[OE]

- Activating the ASC function (➠ 111).

ASC fault

 ASC indicator and warning light shows.

 `Traction control failure! Riding at mod. speed pos. Ride carefully to next specialist workshop.`

Possible cause:

The ASC control unit has detected a fault. The ASC function is no longer available.

- You can continue to ride. Bear in mind that the ASC function

is not available. Take note of the more detailed information on situations that can lead to an ASC fault (➠ 187).
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

DTC intervention

– with riding modes Pro OE


DTC indicator and warning light flashes quickly.

The DTC has detected a degree of instability at the rear wheel and has intervened to reduce torque. The indicator and warning light flashes longer than the DTC intervention lasts. This affords the rider visual feedback on control intervention even after the critical situation has been dealt with.

DTC self-diagnosis not completed

– with riding modes Pro OE


DTC indicator and warning light flashes slowly.

Possible cause:

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

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

DTC switched off

– with riding modes Pro OE


DTC indicator and warning light comes on.

– with Connectivity OE


`Off!`


`Traction control deactivated.`

Possible cause:

The rider has switched off the DTC system.
- DTC Switching on (➠ 113).

DTC fault

– with riding modes Pro OE


DTC indicator and warning light comes on.


`Traction control failure! Riding at mod. speed pos.`

Ride carefully to next specialist workshop.

Possible cause:

The DTC control unit has detected a fault.

- Bear in mind that the DTC function is not available or the functionality is subject to certain restrictions.
- You can continue to ride. Take note of the more detailed information on situations that can lead to a DTC fault (➠ 188).
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

D-ESA fault

General warning light shows yellow.

Spring strut adjustment faulty! Riding at mod. speed pos. Ride carefully to next specialist workshop.

Possible cause:

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

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

Fuel down to reserve

Fuel reserve reached. Go to a filling station soon.

WARNING

Irregular engine operation or engine shutdown due to lack of fuel

Risk of accident, damage to catalytic converter

- Do not run the fuel tank dry.◀

Possible cause:

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

Reserve fuel	
approx. 3.5 l	

- Refuelling (➠ 177).

Gear not trained

– with shift assistant Pro OE

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

Possible cause:

– with shift assistant Pro OE

The gearbox sensor is not fully trained.

- Engage neutral gear N and, with the vehicle at a standstill, let the engine run for at least 10 seconds to train the idle gear.
- Engage all gears with clutch actuation and ride at least 10 seconds with the engaged gear.

» The gear indicator starts to flash when the gearbox sensor has been trained successfully.

– Shift assistant Pro will operate as described (➠ 194) once the transmission sensor has been completely taught-in.

- If the training process was not successful, have the fault rectified by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

Hazard warning lights system is switched on



Turn signal indicator light flashes green.



Turn signal indicator light flashes green.

Possible cause:

The driver has switched on the hazard warning lights system.

- Operating hazard warning flashers (➠ 100).

Service-due indicator



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

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

NOTICE

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

Service due



is displayed in white.

`Service due! Have service carried out by authorised BMW Motorrad Retailer.`

Possible cause:

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

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

» The operational and road safety of the motorcycle remain intact.
» The motorcycle's value is maintained as best as possible.

Service-due date has passed


General warning light shows yellow.


is displayed in yellow.

`Service overdue! Have service carried out by authorised BMW Motorrad Retailer.`

Possible cause:

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

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

» The operational and road safety of the motorcycle remain intact.
» The motorcycle's value is maintained as best as possible.

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Ignition switch/steering lock

Keys

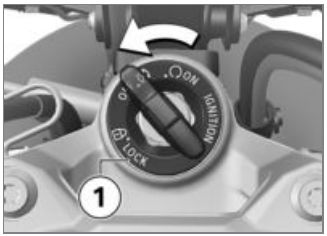
You receive 2 ignition keys.
Please note the information about the electronic immobiliser (EWS) if a key is lost or mislaid (➠ 88).
Ignition switch, fuel filler cap lock and seat lock are all operated with the same key.

– with case OA
– with topcase OA

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

Lock the handlebars

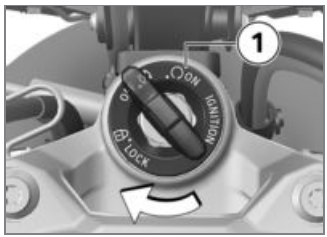
- Turn the handlebars all the way to left.



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

» Ignition, lights and all function circuits switched off.
» Steering lock secured.
» Key can be removed.

Switching on ignition



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

» Parking lights and all function circuits switched on.
» Engine can be started.
» Pre-Ride-Check is performed. (➠ 168)
» ABS self-diagnosis is in progress. (➠ 169)
» ASC self-diagnosis is in progress. (➠ 170)

Welcome lights

- Switch on the ignition.

» The side lights briefly light up.

– with daytime riding light OE
» The daytime riding lights briefly light up.◁
– with LED additional headlight OA
» The LED auxiliary headlights briefly light up.◁

Switching off ignition



• Turn the key to the **1** position.
» Light switched off.
» Handlebars not locked.
» Key can be removed.
» Electrically powered accessories remain operational for a limited period of time.
» The battery can be recharged via the vehicle socket.

Electronic immobiliser

The electronic design of the motorcycle allows it to access data stored in the ignition key by means of a ring antenna located in the ignition switch. The engine control unit will only allow the engine to be started if the key is identified as “authorised”.

NOTICE

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

If you lose a key, you can have it barred by your authorised BMW Motorrad Retailer. If you wish to do this, you will need to bring all other keys for the motorcycle with you.
The engine cannot be started by a barred key, but a key that has been barred can subsequently be reactivated.
You can obtain emergency/extra keys only through an authorised BMW Motorrad Retailer. The keys are part of an integrated security system, so the dealer is under an obligation to check the legitimacy of all applications for replacement/extra keys.

Ignition with Keyless Ride

– with Keyless Ride OE

Keys

NOTICE

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

You receive one radio-operated key and one emergency key. Please note the information about the electronic immobiliser (EWS) if a key is lost or mislaid (88).
Ignition, fuel filler cap and anti-theft alarm system all work with the radio-operated key. Seat lock, topcase and cases can be locked and unlocked manually.

NOTICE

The vehicle cannot be started if the radio control key is not within range (e.g. key inside one of the cases or the topcase).
If the radio-operated key remains out of range the ignition is switched off after about 1.5 minutes to protect the battery.
It is advisable to keep the radio-operated key on your person (e.g. in a jacket pocket) and to have the emergency key with you as an alternative.◀

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

Lock the handlebars

Requirement

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

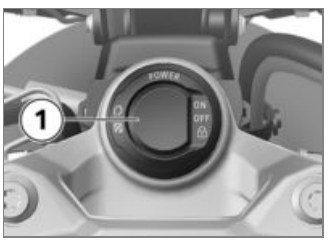


- Press and hold down button **1**.
» The steering lock engages with an audible click.
» Ignition, lights and all function circuits switched off.
- To unlock the steering lock, briefly press button **1**.

Switching on ignition

Requirement

Radio-operated key is within range.



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

Version 1:

- Briefly press button **1**.
- » Side lights and all function circuits are switched on.
- – with daytime riding light OE
- » Daytime riding light is switched on.◁
- – with LED additional headlight OA
- » LED auxiliary headlights are switched on.◁
- » Pre-Ride-Check is performed. (➠ 168)
- » ABS self-diagnosis is in progress. (➠ 169)
- » ASC self-diagnosis is in progress. (➠ 170)

Version 2:

- Steering lock is engaged; press and hold down button **1**.
- » The steering lock disengages.
- » Parking lights and all function circuits switched on.
- » Pre-Ride-Check is performed. (➠ 168)
- » ABS self-diagnosis is in progress. (➠ 169)
- » ASC self-diagnosis is in progress. (➠ 170)

Switching off ignition

Requirement

Radio-operated key is within range.



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

Version 1:

- Briefly press button **1**.
- » Light is switched off.
- » Handlebars (steering lock) are not locked.

Version 2:

- Turn the handlebars all the way to left.

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

» Light is switched off.
» The steering lock engages.

Electronic immobiliser EWS

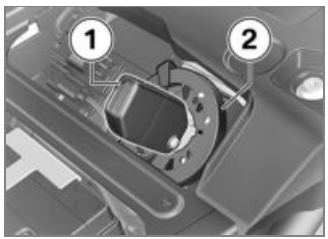
The on-board electronics access the data saved in the radio-operated key via a ring aerial in the wireless lock. The ignition is not enabled for starting until the engine control unit has recognised the radio-operated key as "authorised" for your motorcycle.

NOTICE

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

If you mislay a radio-operated key you can have the key in question barred by your authorised BMW Motorrad Retailer. In order to have a key barred you must bring along all the other keys belonging to the motorcycle.
The engine cannot be started by a barred radio-operated key, but a radio-operated key that has been barred can subsequently be reactivated.
You can obtain emergency/extra keys only through an authorised BMW Motorrad Retailer. The radio-operated keys are part of an integrated security system, so the dealer is under an obligation to check the legitimacy of all applications for replacement/extra keys.

Battery of the radio-operated key is flat or the key has been lost



- Please consult the information on the electronic immobiliser (**EWS**) if a key is lost or mislaid.
- If you happen to lose or mislay the radio-operated key while on a journey, you can start the vehicle with the emergency key.
- If the battery of the radio-operated key is flat, the motorcycle can be started by inserting the

folded radio-operated key into the ring aerial under the seat.
- Removing seat (➠ 127).
- Insert emergency key or the folded, flat radio-operated key **1** in the ring aerial **2**.

NOTICE

The emergency key or the folded, flat radio-operated key must **be inserted** into the opening in the ring aerial.◀

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

» Pre-Ride-Check is performed.
– Key has been recognised.
– Engine can be started.
- Starting the engine (➠ 167).

Replace the battery of the radio-operated key

Requirement

The radio-operated key does not react because the battery is weak.

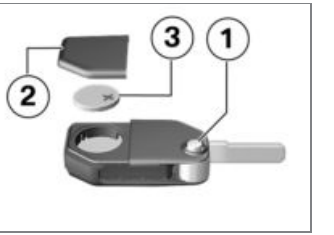
`KEYLO!` appears on the display.

- Change the battery.

– with Connectivity[OE]

`Remote key battery weak. Limited central locking function. Change battery.`◁

- Change the battery.◁



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

ATTENTION

Unsuitable or incorrectly inserted batteries
Component damage

- Use a battery compliant with the manufacturer's specifications.
- When inserting the battery, always make sure polarity is correct.◀
- Insert the new battery with the positive terminal up.

Battery type
For Keyless Ride-radio-operated key
CR 2032

- Remove the battery **2**.

» Red LED on the instrument panel flashes.

» The radio-operated key is ready for use again.

Emergency off switch (kill switch)



1 Emergency off switch (kill switch)

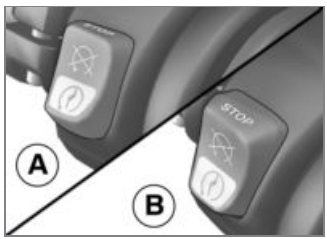
WARNING

Operation of the kill switch while riding

Risk of fall due to rear wheel locking

- Do not operate the kill switch when riding.◀

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



A Engine switched off

B Normal operating position (run)

Intelligent emergency call

– with intelligent emergency call OE

Emergency call via BMW

Press the SOS button in an emergency only.

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

The emergency call is not able to be ensured because of technical reasons due to unfavourable conditions, e.g. in areas where there is no mobile phone reception.

Language for emergency call

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

NOTICE

A changeover of the language for the emergency call can only be performed by the BMW Motorrad partner. The language assigned to the vehicle varies from the selectable language the driver can choose as the display language in the multifunction display.◀

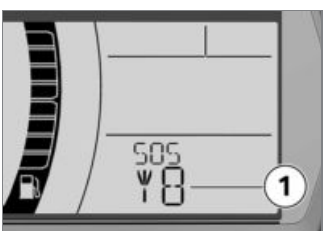
Manual emergency call

Requirement

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



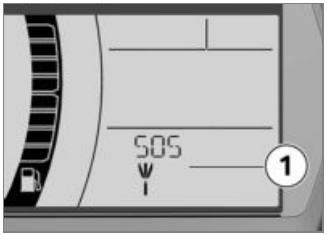
- Open cover **1**.
- Briefly press SOS button **2**.





– with Connectivity[OE]
◁

» The time until transmission of the emergency call **1** is displayed. During that time, it is possible to cancel the emergency call.
• Operate the emergency-off switch to stop the engine.
• Remove helmet.
» After expiry of the timer, a voice contact to the BMW Call Center is established.



The reception symbol **1** indicates that the connection has been established.



– with Connectivity[OE]
The connection was established.◁



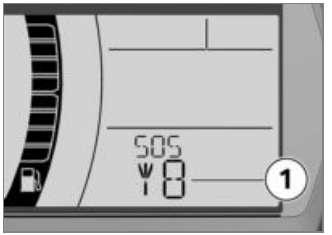
• Provide information to the emergency services using the microphone **3** and speaker **4**.

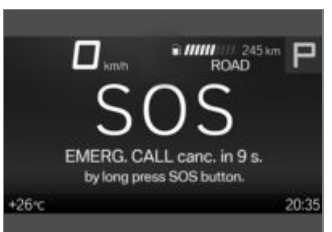
Automatic emergency call

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

Emergency call in the event of a light fall

• A minor fall or a crash is detected.
» An acoustic signal is sounded.



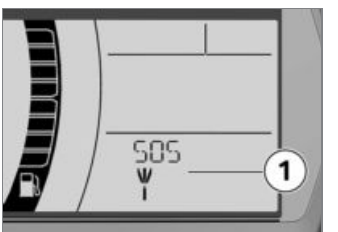


– with Connectivity[OE]
◁

» The time until transmission of the emergency call **1** is displayed. During that time, it is possible to cancel the emergency call.

• If possible, remove helmet and stop engine.

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



The reception symbol **1** indicates that the connection has been established.



– with Connectivity[OE]
The connection was established.◁



• Open cover **1**.

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

Emergency call in the event of a severe fall

- A severe fall or a crash is detected.

» The emergency call is placed automatically without delay.

Lights

Low-beam headlight and sidelights

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

NOTICE

The side lights place a strain on the battery. Do not switch the ignition on for longer than absolutely necessary.◀

The low-beam headlight switches on automatically under the following conditions:

– When the engine is started.
– When the vehicle is pushed with the ignition switched on.

NOTICE

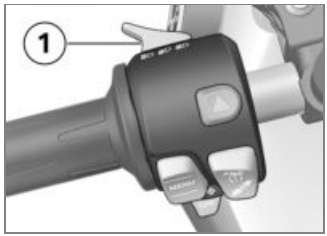
When the engine is not running you can switch on the lights by switching on the ignition and either switching on the high-beam headlight or operating the headlight flasher.◀

– with daytime riding light OE

In daytime the daytime riding light can be switched on as an alternative to the low-beam headlight.

High-beam headlight and headlight flasher

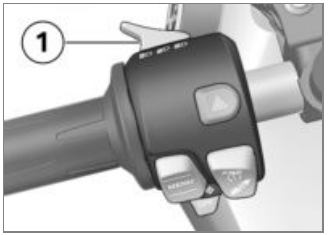
- Switching on ignition (➠ 87).



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

Headlight courtesy delay feature

- Switch off the ignition.



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

» The vehicle lighting lights for one minute and is automatically switched back off.

– This can be used after parking the vehicle, for example, to light the way to the house door.

Parking lights

- Switching off ignition (➠ 88).



- Immediately after switching off the ignition, push button **1** to the left and hold it in that position until the parking lights come on.
- Switch the ignition on and off again to switch off the parking lights.

Day run lights

– with daytime riding light OE

Manual daytime riding light

Requirement

Automatic daytime riding light is switched off.

WARNING

Switching on the daytime riding light in the dark.

Risk of accident

- Do not use the daytime riding light in the dark.◀

NOTICE

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

- Starting the engine (➠ 167).
- Switch off the A DRL function in SETUP.

– with Connectivity[OE]
- In the `Settings`, `Vehicle settings`, `Lights` menu, switch off the `Auto. dayt. rid. light` function.◁



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

The indicator light for the daytime riding light lights up.

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

NOTICE

If the high-beam headlight is switched on while the daytime riding light is on, the daytime riding light is switched off after approx. 2 seconds and the high-beam headlight, low-beam headlight and front side light are switched on.
If the high beam headlight is switched off again, the daytime running light is not automatically reactivated, but must be switched on again if required.◀

Automatic daytime riding light

WARNING

The automatic daytime riding light does not replace the personal assessment of the light conditions
Risk of accident
- Switch off the automatic daytime riding light in poor light conditions.◀

NOTICE

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

- Switch on the A DRL function in SETUP.
– with Connectivity[OE]
- In the `Settings`, `Vehicle settings`, `Lights` menu, switch on the `Auto. dayt. rid. light` function.

The indicator light for the automatic daytime riding light lights up.

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

The indicator light for the daytime riding light shows if the daytime riding light is active.◁

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

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

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

Hazard warning lights system

Operating hazard warning flashers

• Switch on the ignition.

NOTICE

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

NOTICE

The indicator function replaces the hazard warning lights function while the indicator button is pressed once operating readiness is switched on. The hazard warning lights function becomes active again once the indicator button is released.◀



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

» Ignition can be switched off.

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

Turn indicators

Operating the turn indicators

• Switch on the ignition.



• Press button **1** to the left to switch on the left turn indicator.
• Press button **1** to the right to switch on the right turn indicator.
• Operate button **1** in the centre position to switch off the turn indicator.

Comfort turn indicator



If button **1** has been pressed to the right or left, the turn indicators are automatically switched off under the following circumstances:
– Speed below 30 km/h: after 50 m distance covered.
– Speed between 30 km/h and 100 km/h: after a speed-dependent distance covered or in case of acceleration.
– Speed over 100 km/h: after flashing five times.

If button **1** is pressed to the right or left slightly longer, the turn indicators only switch off automatically once the speed-dependent distance covered is reached.

Multifunction display

Select the display at the top

• Switching on ignition (➠ 87).



• Press the top part **1** of the MENU rocker button briefly to select the display in the upper line **3**.

The following values can be displayed:
– Odometer ODO

– Trip distance 1 TRIP 1
– Trip distance 2 TRIP 2
– Automatic trip distance TRIP A, is automatically reset if a minimum of six hours have passed and the date has changed since the ignition was switched off.
– Call up the settings menu: SETUP ENTER (is only displayed when the vehicle is stationary)

Select the display at the bottom



• Press the bottom part **2** of the MENU rocker button briefly to select the display in the bottom line **4**.

The following values can be displayed:

– Range RANGE
– Average consumption CONS 1
– Average consumption CONS 2
– Current consumption CONS C
– Outside temperature EXTEMP
– Coolant temperature ENGTMP
– Average speed SPEED Ø

– with tyre pressure control (RDC)[OE]
– Tyre pressure control RDC◁

– Battery voltage VOLTGE
– Riding time RDTIME
– Date DATE

Resetting trip distance recorder

• Switch on the ignition.
• Select the trip recorder.
» The trip recorder desired is displayed.



• Press and hold the top part **1** of the MENU rocker button until the trip distance recorder **3** is reset.
» Trip recorder reading = 0.0

Resetting the average values

• Switch on the ignition.
• Press the bottom part of the MENU rocker button repeatedly until the desired average consumption or the average speed is displayed.



- Press the bottom part **2** of the MENU rocker button until the average value **4** displayed has been reset.

» Average value = -- -- --

Resetting the riding time

- Switch on the ignition.
- Briefly press the bottom part **2** of theMENU rocker button repeatedly until the riding time RDTIME appears on the display.



- Press and hold the bottom part **2** of the MENU rocker button until the riding time RDTIME **3** has been reset.

» Riding time starts at 00:00:00

SETUP

Selecting SETUP

Requirement

The vehicle is at a standstill.



- Briefly press the top part **1** of the MENU rocker button repeatedly until SETUP ENTER **3** appears on the display.
- Press and hold the top part **1** of the MENU rocker button to start SETUP.
- Press the top part **1** of the MENU rocker button briefly to select the following parameters in the SETUP:

– with anti-theft alarm (DWA) OE

– Automatically activate anti-theft alarm function when the ignition is switched off DWA ON or

leave the automatic function switched off DWA OFF.◁
– Set the time CLOCK.
– with preparation for navigation system OE
– Show time from Global Positioning System GPS ON or time from on-board computer GPS OFF.◁
– Set the date DATE.
– Switch upshift recommendation off ECOSFT OFF or on ECOSFT ON.
– Adjust the brightness of the backlighting in the instrument cluster BRIGHT.
– with daytime riding light OE
– Activate automatic daytime riding light A DRL ON or manual daytime riding light A DRL OFF.◁
– with tyre pressure control (RDC) OE
– Switch minimum pressure warning off RDC PRO OFF or on RDC PRO ON. The minimum pressure warning can only be switched off in off-road mode.◁
– Adjust the units UNIT.
– Reset displays RESET.
– Exit SETUP EXIT.

Quitting SETUP

Requirement

There are four options for quitting SETUP.



- Press and hold the top part **1** of the MENU rocker button.
» SETUP ENTER is displayed.
- Alternatively, briefly press the top part **1** of the MENU rocker button repeatedly until SETUP EXIT appears on the display.
- Press and hold the bottom part **2** of the MENU rocker button.
» SETUP ENTER is displayed.
- Alternatively: switch the ignition off and on again.
» SETUP ENTER is displayed.
- Alternatively, ride away.

Speed for operation in SETUP mode
max 10 km/h

» SETUP will be quit when the permissible speed for operation is exceeded.
» ODO is displayed.
» All settings will be saved whatever method is used to quit SETUP.

Date and time

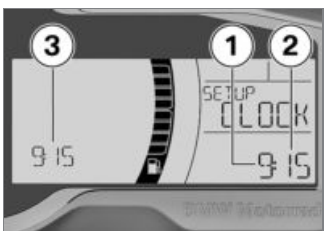
Setting the clock

Requirement

The vehicle is at a standstill.

- Switch on the ignition.
- Selecting SETUP (➠ 103).

» `SETUP CLOCK` is displayed.



- Press and hold the bottom part of the MENU rocker button to set the hours.

» The hours **1** flash.

- Press the top part of the MENU rocker button briefly to advance the hours.
- Press the bottom part of the MENU rocker button briefly to go back an hour.
- Press and hold the bottom part of the MENU rocker button once the desired hour has been set.

» The minutes **2** flash.

- Press the top part of the MENU rocker button briefly to advance the minutes.
- Press the bottom part of the MENU rocker button briefly to go back a minute.
- Press and hold the bottom part of the MENU rocker button once the desired minute has been set.

» The minutes **2** stop flashing.

- Checking the setting on the time display **3**.

» This completes the process.

- Press and hold the top part of the MENU rocker button.

» `SETUP ENTER` is displayed.

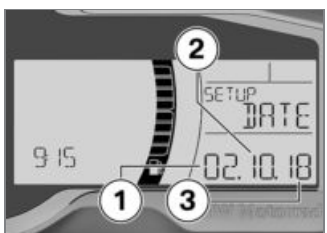
Setting the date

Requirement

The vehicle is at a standstill.

- Switch on the ignition.
- Selecting SETUP (➠ 103).

» `SETUP DATE` is displayed.



- Press and hold the bottom part of the MENU rocker button.

» Day **1** flashes.

- Press the top part of the MENU rocker button briefly to advance the day.

- Press the bottom part of the MENU rocker button briefly to go back one day.
- Press the bottom part of the MENU rocker button and hold once the desired day has been set.

» Month **2** flashes.

- Press the top part of the MENU rocker button briefly to advance the month.
- Press the bottom part of the MENU rocker button briefly to go back one month.
- Press the bottom part of the MENU rocker button and hold once the desired month has been set.

» Year **3** flashes.

- Press the top part of the MENU rocker button briefly to advance the year.
- Press the bottom part of the MENU rocker button briefly to go back one year.
- Press the bottom part of the MENU rocker button and hold once the desired year has been set.

» Year **3** no longer flashes.
» This completes the process.

- Press and hold the top part of the MENU rocker button.

» SETUP ENTER is displayed.

General settings in the multifunction display

Adjusting the brightness of the backlighting in the instrument cluster

Requirement

The vehicle is at a standstill.

- Switch on the ignition.
- Selecting SETUP (➠ 103).
- Briefly press the top part **1** of the MENU rocker button repeatedly until SETUP BRIGHT appears on the display.



- Briefly press the bottom part **2** of the MENU rocker button repeatedly until the desired brightness of the backlighting is set.
- Press and hold the top part **1** of the MENU rocker button to quit SETUP.

» SETUP ENTER appears on the display.

Adjusting the units

Requirement

The vehicle is at a standstill.

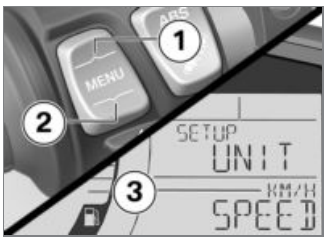
- Switch on the ignition.
- Selecting SETUP (➠ 103).

- Briefly press the top part **1** of the MENU rocker button repeatedly until SETUP UNIT ENTER appears on the display.
- Press and hold the bottom part **2** of the MENU rocker button to activate SETUP UNIT.

» SETUP UNIT SPEED appears on the display.

- Press the top part **1** of the MENU rocker button briefly to select the following parameters in the SETUP UNIT:

– Change speed indicator unit between KMH and MPH
– Change distance recorder unit between KM and MI
– Change fuel consumption display between L/100, KM/L and MPG
– Change tyre pressure control (RDC) unit between BAR, PSI and KPA
– Change temperature display unit between °C and °F
– Change clock display between 24H and 12H
– Change date format between DMY and MDY



- Press the bottom part **2** of the MENU rocker button briefly until the desired unit **3** is set on the speed indicator or the distance recorder.
- Briefly press the top part **1** of the MENU rocker button repeatedly until SETUP UNIT EXIT appears on the display if you wish to complete adjustment.
- Press and hold the bottom part **2** of the MENU rocker button to quit SETUP UNIT.

» SETUP RESET appears on the display.



- Briefly press the top part **1** of the MENU rocker button repeatedly until SETUP UNIT RESET appears on the display if you wish to reset the units to the factory setting.
- Press and hold the bottom part **2** of the MENU rocker button until the RESET **3** display flashes.

» Units have been reset to the factory setting.
» SETUP UNIT EXIT is displayed.
• Press and hold the bottom part **2** of the MENU rocker button to quit SETUP UNIT.
» SETUP RESET appears on the display.

Resetting SETUP

• Switch on the ignition.
• Selecting SETUP (➠ 103).



• Briefly press the top part **1** of the MENU rocker button repeatedly until SETUP RESET appears on the display.
• Press and hold the bottom part **2** of the MENU rocker button until SETUP has been reset.

NOTICE

Date and time can also be reset to a default value by using the SETUP RESET function.◀

» A time of 12:00 is displayed.
• Press and hold the top part **1** of the MENU rocker button to quit SETUP.
» SETUP ENTER is displayed.

On-board computer with Connectivity

– with Connectivity[OE]

Calling up the on-board computer

• Call up the My vehicle menu.
• Scroll to the right until the ON-BOARD COMPUTER menu screen is displayed.

Resetting on-board computer

• Calling up the on-board computer (➠ 108).
• Press down the MENU rocker button.
• Select Reset all values or Reset individual val. and confirm.

The following values can be reset:

– Break
– Journey
– Current (TRIP 1)
– Av. spee.
– Av. consump.

Calling up the trip computer

• Calling up the on-board computer (➠ 108).

- Scroll to the right until the TRIP COMPUT. menu screen is displayed.

Resetting trip computer

- Calling up the trip computer (➠ 108).
- Press down the MENU rocker button.
- Select Reset automatically or Reset all and confirm.

» The trip computer is automatically reset if a minimum of six hours have passed and the date has changed since the ignition was switched off if Reset automatically is selected.

Antilock Brake System (ABS)

Deactivating the ABS function

- Switching on ignition (➠ 87).

NOTICE

You have the option of deactivating the ABS function while the motorcycle is on the move.◀



- Press and hold button **1** until the ABS indicator and warning light changes its status.

– with Connectivity[OE]

Immediately after the button **1** is pressed, the system statuses for ASC/DTC and ABS are displayed as ON.◁

» Initially the ASC indicator and warning light changes status. Press and hold button **1** until the ABS indicator and warning light changes its status. In this case, the ASC/DTC setting does not change.

ABS indicator and warning light shows.

– with Connectivity[OE]

Possible ASC system status OFF! is displayed.◁

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

ABS indicator and warning light remains on.

– with Connectivity[OE]
The ASC/DTC system status remains unchanged and a new ABS system status OFF! is briefly displayed.◁

» The ABS function is switched off.

Activating the ABS function



- Press and hold button **1** until the ABS indicator and warning light changes its status.

– with Connectivity[OE]
Immediately after the button **1** is pressed, the system statuses for ASC/DTC and ABS are displayed as OFF!.◁

ABS indicator and warning light goes out; if self-diagnosis has not completed, it starts flashing.

– with Connectivity[OE]
Possible ASC system status ON is displayed.◁

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

ABS indicator and warning light remains off or continues to flash.

– with Connectivity[OE]
The ASC/DTC system status remains unchanged and a new ABS system status ON is briefly displayed.◁

» The ABS function is switched on.

- You also have the option of switching the ignition off and then on again.

An ABS fault has occurred if the ABS indicator and warning light shows when the motorcycle accelerates to a speed in excess of the minimum stated below after the ignition was switched off and then on again.

min 10 km/h

– with riding modes Pro[OE]

- If the encoding plug is not inserted, you have the alternative of switching the ignition off and then on again.◁

Automatic Stability Control (ASC)

Deactivating the ASC function

– without riding modes Pro OE

• Switching on ignition (➠ 87).

NOTICE

You have the option of deactivating the ASC function while the motorcycle is on the move.◀◁



• Press and hold button **1** until the ASC indicator light changes its status.

– with Connectivity OE

Immediately after button **1** is pressed, ASC system status ON and current ABS system status are displayed.◁

ASC indicator and warning light shows.

– with Connectivity OE

Possible ABS system status OFF! is displayed.◁

• Release button **1** once the ASC system status has changed.

ASC indicator and warning light remains on.

– with Connectivity OE

The new ASC system status OFF! is displayed briefly. The ABS system status remains unchanged.◁

» The ASC function is switched off.

Activating the ASC function

– without riding modes Pro OE



• Press and hold button **1** until the ASC indicator light changes its status.

– with Connectivity OE

Immediately after button **1** is pressed, ASC system status OFF! and current ABS system status are displayed.◁

ASC indicator and warning light no longer lights up and starts flashing if the self-diagnosis is incomplete.

– with Connectivity[OE]
Possible ABS system status ON is displayed.◁
- Release button **1** once the status has changed.

ASC indicator and warning light remains off or continues flashing.

– with Connectivity[OE]
The new ASC system status ON is displayed briefly. The ABS system status remains unchanged.◁

» The ASC function is switched on.
- If the encoding plug is not inserted, you have the alternative of switching the ignition off and then on again.

An ASC fault has occurred if the ASC indicator and warning light shows when the motorcycle accelerates to a speed in excess of the minimum stated below after the ignition was switched off and then on again.

min 5 km/h

- See the section entitled "Engineering details" for more information on Automatic Stability Control.

» How does the ASC work? (➠ 186)

Dynamic Traction Control (DTC)

– with riding modes Pro[OE]

DTC Switching off

- Switch on the ignition.

NOTICE

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



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

– with Connectivity[OE]
Immediately after button **1** is pressed, DTC system status ON and current ABS system status are displayed.◁

DTC indicator and warning light comes on.

– with Connectivity[OE]
Possible DTC system status OFF! is displayed.◁
- Release button **1** once the status has changed.

DTC indicator and warning light remains on.

– with Connectivity[OE]
The new DTC system status OFF! is displayed briefly. The ABS system status remains unchanged.◁

» The DTC function is switched off.

DTC Switching on



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

– with Connectivity[OE]
Immediately after button **1** is pressed, DTC system status OFF! and current ABS system status are displayed.◁

DTC indicator and warning light goes out; if self-diagnosis has not completed, it starts to flash.

– with Connectivity[OE]
Possible DTC system status ON is displayed.◁
- Release button **1** once the status has changed.

DTC indicator and warning light remains off or continues to flash.

– with Connectivity[OE]
The new DTC system status ON is displayed briefly. The ABS system status remains unchanged.◁

» The DTC function is switched on.
- If the encoding plug is not inserted, you have the alternative of switching the ignition off and then on again.

A DTC fault has occurred if the DTC indicator light shows when the motorcycle accelerates to a speed in excess of the minimum stated below after the ignition was switched off and then on again.

min 5 km/h

- See the section entitled "Engineering details" for more information on Dynamic Traction Control:

» How does traction control work? (➠ 188)

Electronic Suspension Adjustment (D-ESA)

– with Dynamic ESA OE

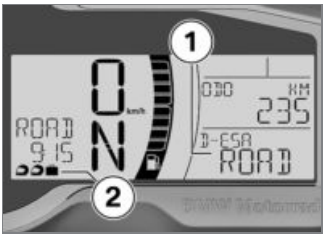
Possible settings

Dynamic ESA (electronic chassis and suspension adjustment) enables you to adjust rear-wheel damping to the road surface. Three damper settings and three spring preload levels are available.

Viewing suspension settings



- Switching on ignition (➠ 87).
- Press button **1** briefly to view the current setting.



The damping action is displayed on the multifunction display in area **1**; the spring preload is displayed in area **2**.



– with Connectivity OE

Immediately after button **1** is pressed, the chassis and

suspension settings for damping action **2** and spring preload **3** are displayed.◁

» The setting shows briefly, then disappears automatically.

Adjusting the chassis and suspension

• Switching on ignition (➠ 87).



• Press button **1** briefly to view the current setting.

To adjust damping:

• Repeatedly press button **1** briefly until the setting you want to use appears on the display.

NOTICE

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

The following settings are available:

– ROAD: Damping for comfortable on-road mode
– DYNA: Damping for dynamic on-road mode
– ENDURO: Damping for off-road mode. Only available in ENDURO or ENDURO PRO riding modes and can also not be changed further in these riding modes.



– with Connectivity[OE]

The selection arrow **4** appears on the display.◁

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

– with Connectivity[OE]

The following settings are available:

– Road: Damping for comfortable on-road mode
– Dyna.: Damping for dynamic on-road mode
– Enduro: Damping for off-road mode. Only available in ENDURO or ENDURO PRO rid-

ing modes and can also not be adjusted further in these riding modes.

– with Connectivity[OE]

A message is displayed if a setting is not possible in the riding mode selected. Example: `In ENDURO riding mode damp. not adjustable.`◁



To adjust spring preload:

- Starting the engine (➠ 167).
- Repeatedly press and hold button **1** until the setting you want to use appears on the display.

NOTICE

You cannot adjust spring preload while the motorcycle is on the move.◀

The following settings are available:

One-up

One-up with luggage

Two-up (with luggage)

– with Connectivity[OE]

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



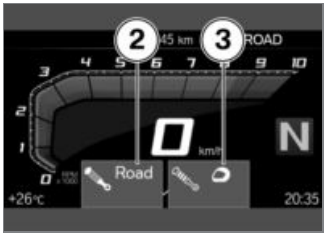
– with Connectivity[OE]

The selection arrow **4** appears on the display.◁

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

- Wait for the mechanism to complete all adjustments before you ride off.

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



– with Connectivity OE

The new chassis and suspension settings for damping action **2** and spring preload **3** are displayed briefly.◁

Riding mode

Using the riding modes

BMW Motorrad has developed 5 operational scenarios for your motorcycle from which you can select the scenario suitable for your situation:

– Riding on a rain-wet roadway.
– Riding on a dry roadway.

– with riding modes Pro OE
– Sporty riding on a dry road surface.
– Riding in gentle off-road terrain.
– Sporty off-road riding.

The interplay of throttle response, ABS control and ASC/DTC control is optimised for each of the scenarios.

NOTICE

See the section entitled "Engineering details" for more information on the riding modes that can be selected.◀

– with Dynamic ESA OE

The chassis and suspension adjustment can also be adjusted in the scenario selected.

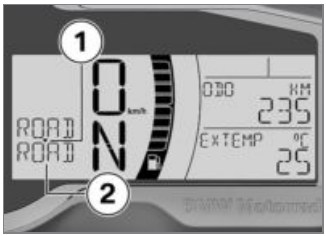
See the "Engineering details" section for more information on the riding modes (➠ 190).

Select riding mode

• Switching on ignition (➠ 87).



• Press button **1**.



The selection arrow **1** and the first selectable riding mode **2** are displayed.



– with Connectivity[OE]

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



ATTENTION

Activation of the off-road mode (Enduro and Enduro Pro) when riding on-road.

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

- Activate off-road mode (Enduro and Enduro Pro) only for off-road riding.◀

- Press button **1** repeatedly until the required riding mode is indicated beneath the selection arrow.

NOTICE

When the Enduro PRO mode is selected: Note that ABS control for the rear wheel is restricted (see the section entitled "Engineering details").◀

The following ride modes can be selected:

– RAIN: For riding on a rain-wet road surface.

– ROAD: For riding on a dry road surface.

– with riding modes Pro[OE]

The following riding modes are additionally available for selection:

– DYNAMIC: For dynamic riding on a dry road surface.

– ENDURO: When riding off-road with road tyres.◁

– with riding modes Pro[OE]

If the encoding plug is fitted, ENDURO PRO replaces the ENDURO riding mode.

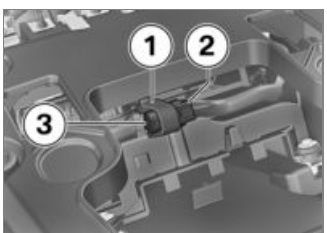
– ENDURO PRO: When riding off-road with knobbly off-road tyres.◁

» With the motorcycle at a standstill, the selected mode is activated after approximately two seconds.
» The newly selected riding mode is activated as you ride only when the following preconditions are satisfied:
– Throttle grip is in idle position.
– Brake is not applied.
» Following activation of the new riding mode the clock is displayed again.
» The set riding mode with the relevant adjustments in engine characteristics, ABS, ASC/DTC and Dynamic ESA also remains once the ignition has been switched off.

Installing encoding plug

– with riding modes Pro[OE]

- Switching off ignition (➠ 88).
- Removing seat (➠ 127).

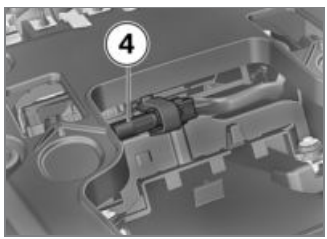


- Remove rubber band **1**.

ATTENTION

Dirt and damp penetrating inside open connectors
Malfunctions

- Reinstall the protective cap after removing the coding plug.◀
- Press in the lock **2** and pull off the cover cap **3**.



- Fit the encoding plug **4**.

NOTICE

The encoding plug and the cover cap are stored in the motorcycle seat together with the toolkit.◀

» The lock **2** engages.
- Install rubber band **1**.
- Switch on the ignition.

NOTICE

If the encoding plug is in place, the disabled driving safety systems remain disabled even after switching the ignition off and back on.◀

Symbol for encoding plug is displayed.

- Select riding mode (➠ 117).
- Installing seat (➠ 128).

PRO riding mode

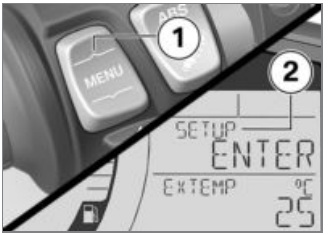
– with riding modes Pro[OE]

Adjustment option

The PRO riding modes can be set individually.

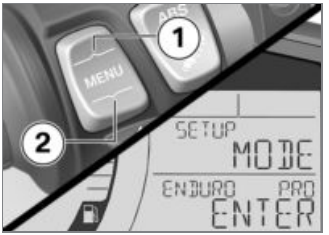
Launch SETUP MODE

- Install the coding plug. (➠ 119).
- Switching on ignition (➠ 87).



- Repeatedly press the **1** button until **2** SETUP ENTER appears in the top line of the display.
- Press and hold button **1** to start the SETUP menu.

» SETUP MODE ENDURO PRO ENTER is displayed.



- Press and hold button **2** to launch the SETUP MODE.

» SETUP ENGINE is displayed.

Adjusting Enduro PRO

– with riding modes Pro[OE]

- Launch SETUP MODE (➠ 120).

» SETUP ENGINE appears on the display.



- Press button **2** briefly to set ENGINE to RAIN, ROAD or DYNA.
- Press button **1** briefly.

» SETUP DTC appears on the display.

- Press button **2** briefly to set DTC to ENDURO or ENDURO PRO.
- Press button **1** briefly.

» SETUP ABS appears on the display.

- Press button **2** briefly to set ABS to ENDURO or ENDURO PRO.
- Press button **1** briefly.

» SETUP MODE RESET appears on the display.



- Press button **1** briefly to keep the settings.

» SETUP MODE EXIT appears on the display.

- Alternatively, press and hold button **2** to reset all parameters.

» The factory setting is adopted for the Enduro PRO riding mode:

– DTC: ENDURO PRO
– ABS: ENDURO PRO
– ENGINE: DYNA

» RESET flashes three times.

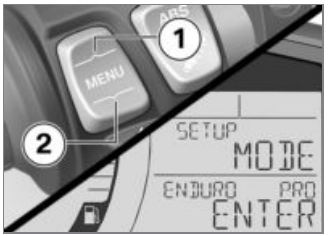
» SETUP MODE EXIT appears on the display.



- Press button **1** briefly to return to the settings menu page.

» SETUP ENGINE appears on the display.

- Alternatively, press and hold button **2** to quit SETUP MODE.



SETUP MODE ENDURO PRO ENTER appears on the display.



- Press the **1** button repeatedly until SETUP EXIT is shown.
- Press and hold button **1**.

» The on-board computer readings appear on the display.

Riding mode PRO with Connectivity

– with riding modes Pro[OE]
– with Connectivity[OE]

Setting up PRO riding mode

– with riding modes Pro[OE]

- Install the coding plug. (➠ 119).
- Switching on ignition (➠ 87).
- Call up the Settings, Vehicle settings menu.

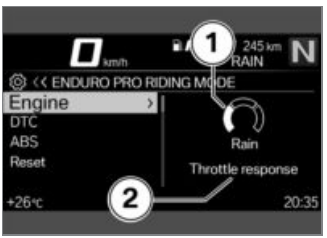
» The ENDURO PRO riding mode can be modified.

- Select and confirm riding mode.

Adjusting Enduro Pro

– with riding modes Pro[OE]
– with Connectivity[OE]

- Setting up PRO riding mode (➠ 122).



– with riding modes Pro[OE]

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

- Select system and confirm.



– with riding modes Pro OE

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

- Setting up system.

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

- The settings can be reset to the factory settings:
- Resetting riding mode settings (➠ 123).

Resetting riding mode settings

- Setting up PRO riding mode (➠ 122).
- Select Reset and confirm.

» The following factory settings apply for ENDURO PRO riding mode:

– DTC: Enduro Pro
– ABS: Enduro Pro
– ENGINE: Dynamic

Cruise-control system

– with cruise control OE

Display when adjusting settings (Speed Limit Info not active)



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

Display when adjusting settings (Speed Limit Info active)

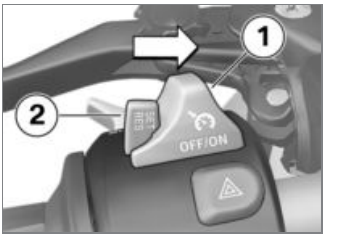


The symbol **1** for cruise control is displayed in the Pure Ride view and the top status line.

Switching on cruise control

Requirement

Cruise control is available only after exiting the Enduro or Enduro Pro riding modes.



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

» Button **2** is operational.

Saving road speed



- Briefly push button **1** forward.

Adjustment range for cruise control
30...210 km/h

Indicator light for cruise control lights up.

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

Accelerating



- Briefly push button **1** forward.

» Speed is increased by 1-2 km/h each time you push the button.

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

» The motorcycle accelerates steplessly.

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

Decelerating



- Briefly push button **1** back.

» The speed is reduced by 1-2 km/h each time you push the button.

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

» The motorcycle decelerates steplessly.

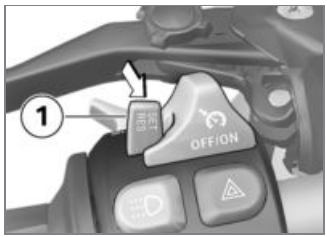
» The current speed is maintained and saved if button **1** is not pushed again.

Switching off cruise control

- Operate the brakes, clutch or throttle grip (throttle back to beyond the basic setting), to switch cruise control off.

» The cruise control indicator light goes out.

Resuming former cruising speed



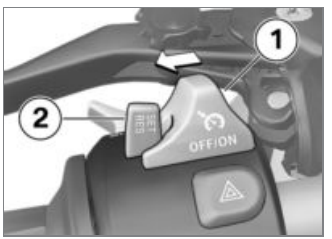
- Briefly push button **1** back to return to the speed previously saved.

NOTICE

Opening the throttle does not deactivate the cruise-control system. If you release the twistgrip the motorcycle will decelerate only to the cruising speed saved in memory, even though you might have intended slowing to a lower speed.◀

Indicator light for cruise control lights up.

Switching off cruise control



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

» The system is deactivated.

» Button **2** is disabled.

Tyre pressure monitoring (RDC)

– with Connectivity OE

– with tyre pressure control (RDC) OE

– with riding modes Pro OE

Switching minimum pressure warning on or off

- The minimum pressure of the tyres can be chosen freely. Once the minimum pressure has been reached, a minimum pressure warning can be displayed.
- Call up the `Settings`, `Vehicle settings`, `RDC` menu.
- Switch `Nom. pressure warning` on or off.

Heated handlebar grips

– with heated grips OE

Operating the heated handlebar grips

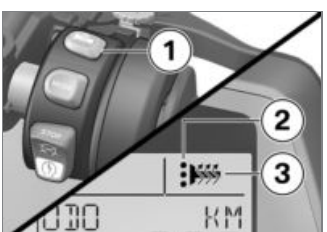
- Starting the engine (➠ 167).

NOTICE

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

NOTICE

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



- Repeatedly press button **1** until the desired heating level **2**

appears in front of the heated grip symbol **3**.

The handlebar grips can be heated to three levels. Stage three is for heating the grips quickly: it is advisable to switch back to stage one or two as soon as the grips are warm.

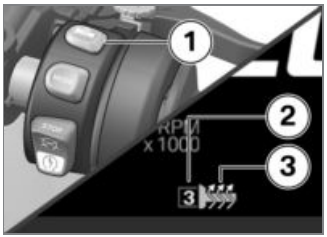
 75% heating power

 55% heating power

 35% heating power

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

– with Connectivity[OE]



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

The handlebar grips can be heated to three levels. Stage three is for heating the grips quickly: it is advisable to switch back to stage one or two as soon as the grips are warm.

 75% heating power

 55% heating power

 35% heating power

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

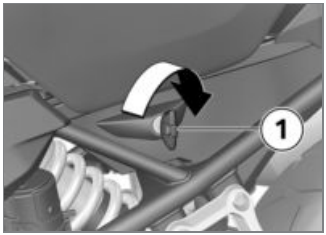
- In order to switch off the heated grips, press button **1** repeatedly until the heated grip symbol **3** is no longer shown on the display.

Seat

Removing seat

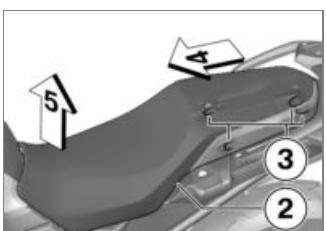
Requirement

Place the motorcycle on its stand on firm, even ground.



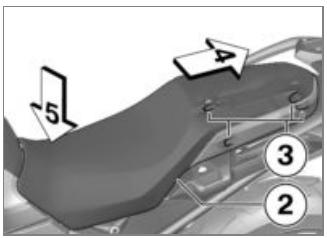
- Turn the seat lock **1** to the right with the ignition key.

» Seat bench is unlocked.



- Press seat bench **2** in direction of arrow **4** out of the holds **3**.
- Remove seat bench in direction of arrow **5** and place on spacer buffers on a clean surface.

Installing seat



- Slide seat bench **2** in direction of arrow **4** into holds **3**.
- Press seat bench firmly in direction of arrow **5**.

» The seat bench audibly engages.

Rider's manual

Stowing the rider's manual

- Stow the rider's manual(s) in the pocket supplied.



- Fold the opening end of the pocket multiple times as tightly as possible, then close the hook and loop fastener **1**.
- Stow the pocket in the rear end.

TFT display

General instructions 130
Principle 131
Pure Ride view 137
General settings 138
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My vehicle 143
Navigation 146
Media 148
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Display software version 149
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General instructions

Warnings

WARNING

Using a smartphone during the journey or while the engine is running

Risk of accident

- Always observe the relevant road traffic regulations.
- Do not use the smartphone during the journey (apart from applications that do not require operation, e.g. making telephone calls with the hands-free system).◀

WARNING

Distraction from the road and loss of control

Operating the integrated information system and communication devices while driving results in a risk of accident

- Operate those systems or devices only when the traffic situation allows for it.
- If necessary, stop and operate the systems or devices when stationary.◀

Connectivity functions

Connectivity functions include media, telephony and navigation. Connectivity functions can be used if the TFT display is connected to a mobile end device and helmet (➠ 140). For more information on the Connectivity functions go to **bmw-motorrad.com**

NOTICE

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

NOTICE

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

BMW Motorrad Connected App

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

NOTICE

On some mobile devices, e.g. those with iOS operating systems, the BMW Motorrad Con-

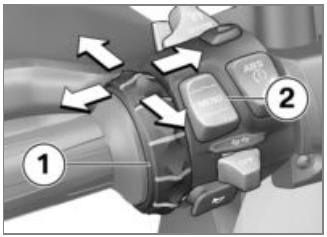
nected App must be opened before use.◀

Actuality

The TFT display may be updated after the publication date. Because of this, your motorcycle may differ from the information supplied in the Rider's Manual. For up-to-date information go to **bmw-motorrad.com**

Principle

Controls



All contents of the display are operated using the multi-controller **1** and the MENU **2** rocker button.
Depending on the context, the following functions are possible.

Multi-controller functions

Turn the multi-controller upwards:

- Move the cursor upwards in lists.
- Adjust settings.
- Increase volume.

Turn the multi-controller downwards:

- Move the cursor downwards in lists.
- Adjust settings.
- Decrease volume.

Tilt the multi-controller to the left:

- Activate the function in accordance with the operation feedback.
- Activate the function to the left or back.
- Go back to the View menu after settings.
- In the View menu, change up a level.
- In the My Vehicle menu: advance one menu screen.

Tilt the multi-controller to the right:

- Activate the function in accordance with the operation feedback.

– Confirm selection.
– Confirm settings.
– Advance a menu step.
– Scroll to the right in lists.
– In the My Vehicle menu: advance one menu screen.

MENU rocker button functions

NOTICE

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

Briefly push MENU up:

– In the View menu, change up a level.
– In the Pure Ride view: change the display for rider info status line.

Press and hold the top part of the MENU rocker button:

– In the View menu: call up Pure Ride view.
– In Pure Ride view: change operating focus to the Navigator.

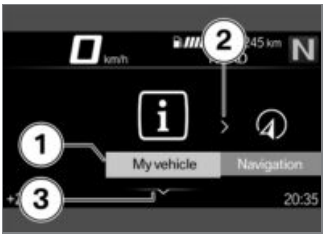
Briefly push MENU down:

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

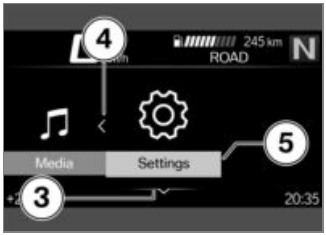
Hold MENU down:

– Change back to the last menu after a previous menu change by holding up the MENU rocker button.

Operating instructions in the main menu



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

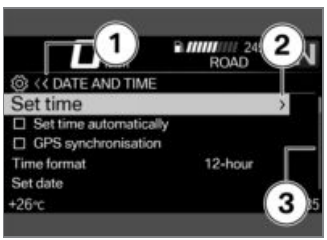


What the operating instructions mean:

– Operating instruction **1**: the left end has been reached.
– Operating instruction **2**: it is possible to scroll to the right.
– Operating instruction **3**: it is possible to scroll down.
– Operating instruction **4**: it is possible to scroll to the left.
– Operating instruction **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 the submenus.



Meaning of the operating instructions:

– Operating instruction **1**: The current display is located in a hierarchical menu. A submenu level is shown with a symbol. Two symbols indicate two or more submenu levels. The colour of the symbol changes depending on whether you can return to a higher level.
– Operating instruction **2**: An additional submenu level can be called up.
– Operating instruction **3**: There are more entries than can be displayed.

Display Pure Ride view

- Press and hold the top part of the MENU rocker button.

Switching functions on and off

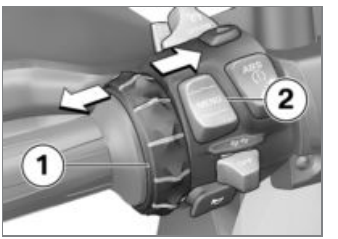


Some menu items have a check box in front of them. The check box shows whether the function is on or off. Action symbols after the menu items show what will be switched by tilting the multi-controller briefly to the right.

Examples for switching on and off:

– Symbol **1** shows that the function is switched on.
– Symbol **2** shows that the function is switched off.
– Symbol **3** shows that the function can be switched off.
– Symbol **4** shows that the function can be switched on.

Call up the menu



- Display Pure Ride view (➠ 133).
- Briefly push button **2** down.

The following menus can be called up:

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

- Repeatedly press the multi-controller **1** briefly to the right until the desired menu item is highlighted.
- Briefly push button **2** down.

NOTICE

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

Move the cursor in lists



- Call up the menu (➠ 134).
- To move the cursor down in lists, turn the multi-controller **1**

down until the desired entry is highlighted.
- To move the cursor up in lists, turn the multi-controller **1** up until the desired entry is highlighted.

Confirm selection



- Select the desired entry.
- Briefly press the multi-controller **1** to the right.

Call up the last menu used

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

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

Change of operating focus

– with preparation for navigation system OE

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

Change the operating focus

– with preparation for navigation system OE

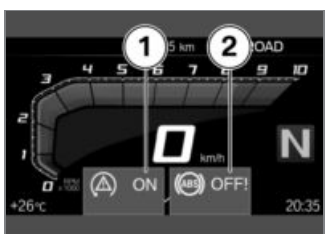
- Securing navigation device (➠ 244).
- Display Pure Ride view (➠ 133).
- Press and hold the top part of the MENU rocker button.

» Operating focus switches to the Navigator or TFT display. The active device is marked on the left-hand side of the top status line. Operating actions relate to the active device until the operating focus is changed again.

» Operating navigation system (➠ 245)

System status displays

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



Examples of what the system statuses mean:

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

– System status **2**: ABS function is switched off.

Switch display for rider info status line

Requirement

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

- Switching on ignition (➠ 87).

» All the information necessary for riding on public roads is presented in the TFT display by the on-board computer. The information can be displayed on the top status line.

– with tyre pressure control (RDC)[OE]

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

- Select content of the rider info. status line (➠ 136).



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

The following values can be displayed:

– Odometer `Total`
– Trip distance 1 `Current`
– Trip distance 2 `Current`

Average consumption 1

Average consumption 2

Riding time 1

Riding time 2

Break 1

Break 2

Average speed 1

Average speed 2

Fuel gauge.

Range

Select content of the rider info. status line

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

- Switch on the desired displays.

» It is possible to switch between the selected displays in the rider info. status line. If no displays are selected, only the range will be displayed.

Adjust settings



- Select and confirm the desired settings menu.
- Turn the multi-controller **1** downwards until the desired setting is highlighted.
- If there are operating instructions, tilt the multi-controller **1** to the right.
- If there are no operating instructions, tilt the multi-controller **1** to the left.

» The setting is saved.

Switching Speed Limit Info on or off

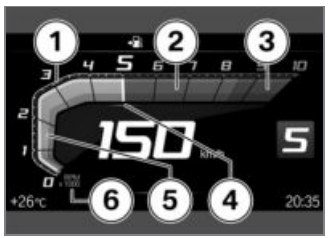
Requirement

Vehicle is connected to the Navigator or a compatible mobile end device. The BMW Motorrad Connected App is installed on the mobile end device.

- `Speed Limit Info` displays the maximum speed currently permitted.
- Call up the `Settings`, `Display` menu.
- Switching `Speed Limit Info` on or off.

Pure Ride view

Rev. counter



1 Scale
2 Lower engine speed range
3 Upper/red engine speed range
4 Needle
5 Secondary indicator
6 Engine speed display unit: 1000 revolutions per minute

Range



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

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

Recommendation to upshift



The upshift recommendation **1** or **2** signals the economically best point in time for upshift.

General settings

Adjust the volume

- Connect rider's and passenger's helmet (➠ 142).
- Increase volume: turn the multi-controller upwards.
- Decrease volume: turn the multi-controller downwards.
- Mute: turn the multi-controller all the way down.

Setting the date

- Switching on ignition (➠ 87).
- Call up the `Settings`, `System settings`, `Date and time`, `Set date` menu.
- Adjusting `Day` `Month` and `Year`.
- Confirm setting.

Set date format

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

• Confirm setting.

Setting the clock

• Switching on ignition (➠ 87).

WARNING

Adjusting the clock while riding

Risk of accident

• Set the clock only when the motorcycle is stationary.◀

• Call up the `Settings`, `System settings`, `Date and time`, `Set time` menu.
• Adjust `Hour` and `Minute`.
• Confirm setting.

Setting time format

WARNING

Adjusting the clock while riding

Risk of accident

• Set the clock only when the motorcycle is stationary.◀

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

Switching GPS synchronisation on or off

– with preparation for navigation system OE

• Call up the `Settings`, `System settings`, `Date and time` menu.
• Switch `GPS synchronisation` on or off.
» The time is taken from the Navigator if the relevant option in the Navigator is activated.
» Special functions (➠ 248)

Setting units of measurement

• Call up the `Settings`, `System settings`, `Units` menu.

The following units of measurement can be set:
– Distance covered
– Pressure
– Temperature
– Speed
– Consumption

Setting the language

• Call up the `Settings`, `System settings`, `Language` menu.

The following languages can be set:
– Chinese
– German
– English
– Spanish
– French
– Italian
– Dutch
– Portuguese
– Russian
– Ukrainian

Adjusting brightness

- Call up the Settings, Display, Brightness menu.
- Adjusting display brightness.

Resetting all settings

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

The settings in the following menus are reset:

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

» Existing Bluetooth connections are not deleted.

Bluetooth

Short-range wireless technology

The Bluetooth function might not be available in certain countries.

Bluetooth is a short-range wireless technology. Bluetooth devices are short-range devices transmitting on the license-free ISM band (Industrial, Scientific, Medical) between 2.402 GHz and 2.480 GHz. They can be operated anywhere in the world without a licence being required. Although Bluetooth is designed to establish and sustain robust connections over short distances, as with every other wireless technology disruptions are possible. Interference can affect connections or connections can sometimes fail. Particularly when multiple devices operate in a Bluetooth network, with wireless technology of this nature it is not possible to ensure fault-free communications in every situation.

Possible sources of interference:

– interference zones due to transmission masts and similar
– devices with non-compliant Bluetooth implementations
– proximity of other Bluetooth-compatible devices

Pairing

Two Bluetooth devices must detect each other before they can create a connection with each other. This process of mutual recognition is known as pairing. When two devices have paired they remember each other, so the pairing process is conducted only once, on initial contact.

NOTICE

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

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

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

Please consult the operating instructions for your communication system.

Pairing

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

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

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

The connection status for mobile end devices is displayed.

Connect mobile end device

- Pairing (➠ 141).
- Activate the mobile end device's Bluetooth function (see mobile end device's operating instructions).
- Select `Mobile device` and confirm.
- Select `PAIRING NEW MOB. DEVICES` and confirm.

Mobile end devices are being searched for.


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

Mobile end devices found are displayed.

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

» The connection is established and the connection status updated.

» If the connection is not established, consult the

troubleshooting chart in the section entitled "Technical data". (➠ 258)
» Depending on the mobile end device, telephone data is transferred to the vehicle automatically.
» Telephone data (➠ 149)
» If the telephone book is not displayed, consult the troubleshooting chart in the section entitled "Technical data". (➠ 259)
» If the Bluetooth connection is not working as expected, consult the troubleshooting chart in the section entitled "Technical data". (➠ 259)

Connect rider's and passenger's helmet

- Pairing (➠ 141).
- Select `Rider's helmet` or `Passenger helm.` and confirm.
- Make the helmet's communication system visible.
- Select `PAIRING NEW HELMETS` or `PAIRING NEW PASS. HELM.` and confirm.

Helmets are searched for.

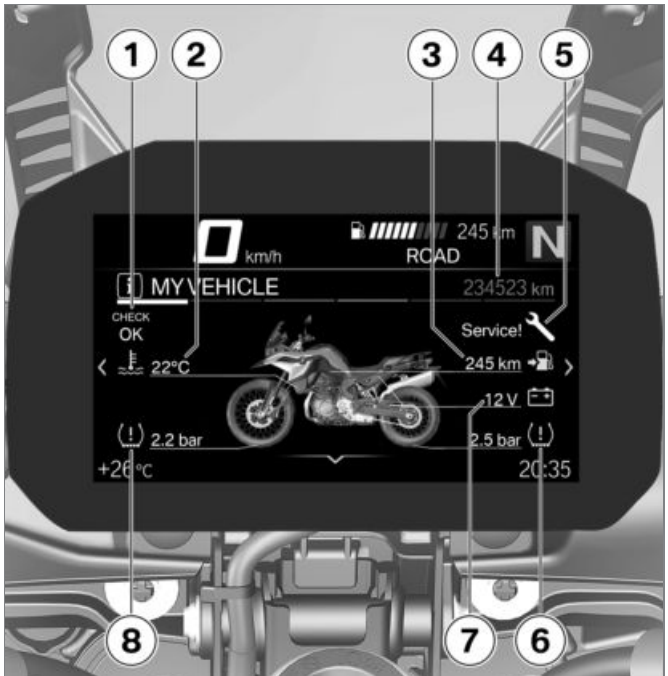

The Bluetooth symbol flashes in the bottom status line during pairing.

Helmets found are displayed.
- Select and confirm helmet.

» The connection is established and the connection status updated.
» If the connection is not established, consult the troubleshooting chart in the section entitled "Technical data". (➠ 258)
» If the Bluetooth connection is not working as expected, consult the troubleshooting chart in the section entitled "Technical data". (➠ 259)

Deleting connections

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



My vehicle

Start screen

1 Check control display
Mode of presentation
(➠ 58)

2 Coolant temperature
(➠ 72)

3 Range (➠ 138)

4 Total distance travelled

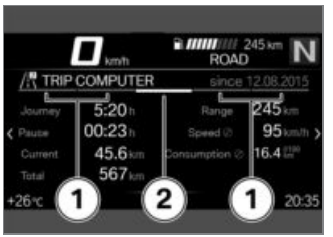
5 Service-due indicator
(➠ 83)

6 Rear tyre pressure (➠ 74)

7 On-board voltage (➠ 226)

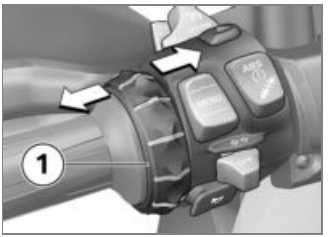
8 Front tyre pressure
(➠ 74)

Operating instructions



– Operating instruction **1**: tabs which show how far to the left or right can be scrolled.
– Operating instruction **2**: tab which shows the position of the current menu screen.

Scrolling through menu screens



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

The My Vehicle menu contains the following screens:

– `MY VEHICLE`
– Check Control messages (if any)
– `ON-BOARD COMPUTER`
– `TRIP COMPUT.`
– with tyre pressure control (RDC)[OE]
– `TYRE PRESSURE`◁
– `SERVICE REQUIREMENTS`

- For more information on tyre pressure and Check Control messages, see the "Displays" section.

NOTICE

Check control messages are attached dynamically to the My Vehicle menu screen as additional tabs.◀

On-board computer and trip computer

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

Service requirements



If the time remaining to the next service is less than a month or if the next service is due within 1000 km, a white CC message is displayed.

Navigation

Warnings

WARNING

Using a smartphone during the journey or while the engine is running

Risk of accident

- Always observe the relevant road traffic regulations.
- Do not use the smartphone during the journey (apart from applications that do not require operation, e.g. making telephone calls with the hands-free system).◀

WARNING

Distraction from the road and loss of control

Operating the integrated information system and communication devices while driving results in a risk of accident

- Operate those systems or devices only when the traffic situation allows for it.
- If necessary, stop and operate the systems or devices when stationary.◀

Precondition

The vehicle is connected to a compatible mobile end device.

Precondition

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

NOTICE

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

Entering destination address

- Connect mobile end device (➠ 141).
- Call up the BMW Motorrad Connected App and start the route guidance.
- Call up the `Navigation` menu in the TFT display.

» Active route guidance is displayed.

» If the active route guidance is not displayed, consult the troubleshooting chart in the section entitled "Technical data". (➠ 259)

Selecting destination from recent destinations

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

Selecting destination from favourites

- The FAVOURITES menu displays all destinations which have been saved as favourites in the BMW Motorrad Connected app. No new favourites can be added using the TFT display.
- Call up the Navigation, Favourites menu.
- Select and confirm destination.
- Select Start guidance.

Entering special destinations

- Special destinations, such as points of interest, can be displayed on the map.
- Call up the Navigation, POIs menu.

The following locations can be selected:

– At current location
– At destination
– Along the route

- Select where the special destinations should be looked for.

E.g. the following special destination can be selected:

– Filling station

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

Setting route criteria

- Call up the Navigation, Route criteria menu.

The following criteria can be selected:

– Route type
– Avoid

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

The number of avoidances activated is displayed in brackets.

Ending route guidance

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

Switching spoken instructions on or off

- Connect rider's and passenger's helmet (➠ 142).
- The navigation can be read out by a computer voice. For this purpose, Spoken instructions must be switched on.
- Call up the Navigation, Active route guidance menu.
- Switch Spoken instructions on or off.

Repeating last spoken instruction

- Call up the Navigation, Active route guidance menu.

- Select Current instruction and confirm.

Media

Precondition

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

Control music playback



- Call up the Media menu.

NOTICE

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

- Adjust the volume (➠ 138).
- Next track: briefly tilt Multi-Controller **1** to the right.
- Last track or start of the current track: briefly tilt Multi-Controller **1** to the left.
- Fast forward: hold Multi-Controller **1** to the right.
- Rewind: hold Multi-Controller **1** to the left.
- Call up the context menu: press the bottom part of the button **2**.

NOTICE

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

» The following functions can be used in the context menu:

– Start playback or Pause playback.
– Select the Now playing, All artists, All albums or All tracks category for search and playback.
– Select Playlists.

You can make the following adjustments in the Audio options submenu:

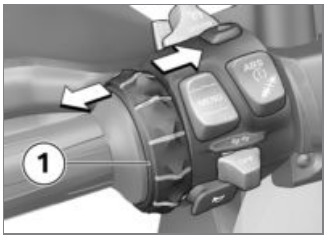
– Switching Shuffle on or off.
– Select Repeat: Off, One (current track) or All.

Phone

Precondition

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

Telephone calls



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

Muting

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

Phone calls with multiple participants

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

Telephone data

Depending on the mobile end device, telephone data may be transmitted to the vehicle automatically once pairing is complete (➠ 140).

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

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

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

Display software version

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

Display licence information

- Call up the `Settings`, `Information`, `Licences` menu.

Anti-theft alarm

Overview 152
Activation 152
Alarm function 154
Deactivation 155
Programming 155

Overview

– with anti-theft alarm (DWA) OE

General information about the anti-theft alarm (DWA)

Any attempt to move the vehicle, change its position, disconnect the vehicle battery or unauthorised starts will activate the alarm. The sensitivity of the system is parametrised such that slight vibrations will not trigger the alarm. Once the system has been activated, any attempt to tamper with the vehicle is indicated acoustically by the siren and visually by all four turn indicators flashing in unison.

You can adjust the behaviour of your DWA in specific areas to your wishes.

Protecting the vehicle battery

A DWA that has been enabled switches off automatically after a few days to protect the vehicle battery and to maintain starting capability. However, it does remain active for at least 30 days.

Activation

– with anti-theft alarm (DWA) OE

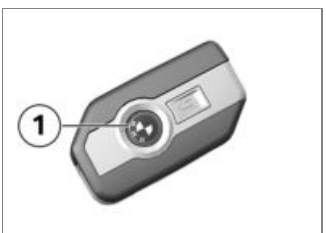
Activation

- Switching on ignition (➠ 87).
- Adjusting the alarm system (➠ 153).
- Switch off the ignition.

» If the alarm system is activated, then the alarm system will be automatically activated when the ignition is switched off.
» Activation takes approximately 30 seconds to complete.
» Turn indicators flash twice.
» Confirmation tone sounds twice (if programmed).
» Anti-theft alarm is active.

Activation with Keyless Ride

– with Keyless Ride OE



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

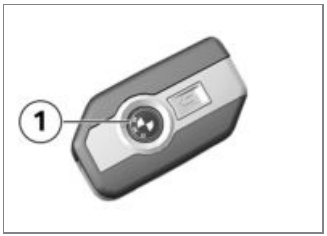
» Activation takes approximately 30 seconds to complete.
» Turn indicators flash twice.
» Confirmation tone sounds twice (if programmed).
» Anti-theft alarm is active.

Motion sensor when motorcycle is to be transported

If you want to transport your motorcycle by train or on a trailer, for example, it is advisable to switch off the motion sensor. If the motion sensor is not switched off the severe movements occurring in transit could trigger the alarm.

Deactivating the motion sensor

– with Keyless Ride[OE]



- Press button **1** on the radio-operated key again during the activation phase.

» Turn indicators flash three times.

» Confirmation tone sounds three times (if programmed).

» Motion sensor has been deactivated.

Adjusting the alarm system

- Switching on ignition (➠ 87).
- Selecting SETUP (➠ 103).
- Briefly press the top part **1** of the MENU rocker button repeatedly until SETUP DWA appears on the display.



- Press the bottom part **2** of the MENU rocker button briefly to toggle between DWA ON **3** and DWA OFF.

The following settings are available:

– DWA ON: The DWA anti-theft alarm is active and will be armed automatically when the ignition is switched off.

– DWA OFF: The DWA anti-theft alarm is deactivated.

- Press and hold the top part **1** of the MENU rocker button to quit SETUP.

» SETUP ENTER appears on the display.

– with Connectivity OE

- Call up the Settings, Vehicle settings, Alarm system menu.

» The following settings are available:

– Adapt Warning signal
– Switch Tilt alarm sensor on or off
– Switch Arming tone on or off
– Switch Arm automatically on or off

» Programming options (➠ 155)

Alarm function

– with anti-theft alarm (DWA) OE

Alarm triggers

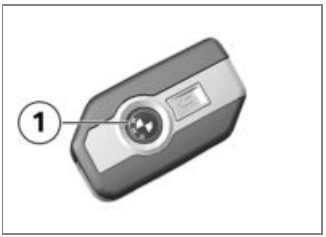
A DWA alarm can be triggered by:

– Motion sensor.
– An attempt to use an unauthorised vehicle key to switch on the ignition.
– Disconnection of the anti-theft alarm (DWA) from the vehicle's battery (DWA internal battery in the anti-theft alarm provides power).

Alarm

An alarm sounds for approximately 28 seconds. The system is active again another 10 seconds later.

– with Keyless Ride OE



A triggered alarm tone can be interrupted at any time by pressing the button **1** on the radio-operated key. This function does not modify the status of the alarm system.

While an alarm is in progress an alarm tone sounds and the turn indicators flash. You can program the alarm tone type.

Reason for an alarm

Once you have deactivated the alarm function, the DWA LED indicates the reason for potential alarm activation for one minute:

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

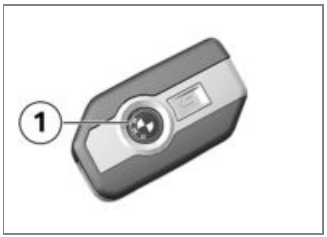
Deactivation

– with anti-theft alarm (DWA) OE

Deactivating the alarm function

- Switch on using an authorised ignition key.

– with Keyless Ride OE



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

NOTICE

The alarm function is reactivated after 30 seconds if "activation after ignition off" has been selected if the alarm function is deactivated using the radio-operated key and the ignition is not then switched on. ◄

» Turn indicators flash once.
» Alarm tone sounds once (if so programmed).
» Alarm function is deactivated.

Programming

– with anti-theft alarm (DWA) OE

Programming options

The alarm system can be adapted to your particular needs in the following respects by your authorised BMW Motorrad Retailer:

- Confirmation alarm tone after having activated/deactivated the DWA in addition to flashing turn indicators.
- Rising and falling or intermittent alarm tone.

– with Connectivity OE

The alarm system can be adjusted in the `Settings`, `Vehicle settings`, `Alarm system` menu.

Default settings

The anti-theft alarm ships with the following default settings:

– Confirmation alarm tone after having activated/deactivated the DWA: no.
– Alarm tone: intermittent.

Adjustment

Mirrors 158
Headlight 158
Clutch 159
Brakes 160
Spring preload 160
Damping 161

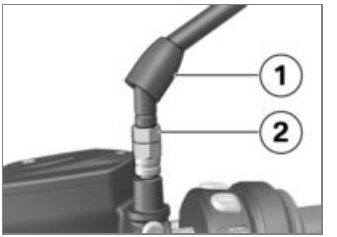
Mirrors

Adjusting mirrors



- Turn the mirror to the correct position.

Adjusting mirror arm



- Push the protective cap **1** upwards above the screw connection on the mirror arm.
- Loosen nut **2**.
- Turn the mirror arm to the appropriate position.
- Tighten the nut to the specified tightening torque, while holding the mirror arm in place.

Mirror (lock nut) to clamping piece
22 Nm (Left-hand thread)

- Push the protective cap over the threaded fastener.

Headlight

Headlight adjustment for right- or left-hand traffic

The asymmetrical low-beam headlight dazzles the oncoming traffic when riding in countries which drive on the other side of the road to that of the motorcycle's country of registration. Have the headlights adjusted to the prevailing conditions by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

Headlight beam throw and spring preload

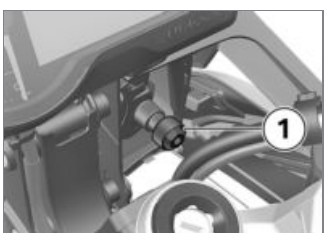
The headlight beam throw generally remains constant by adjustment of the spring preload to the load status.
Adjustment of the spring preload is only inadequate if the payload is very high. In this case, the

headlight beam throw must be adjusted to the weight.

NOTICE

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

Adjusting headlight beam throw



- Loosen screws **1** on the left and right.
- Adjust beam throw by tilting the headlight slightly about its horizontal axis.
- Tighten screws **1** on the left and right.

Clutch

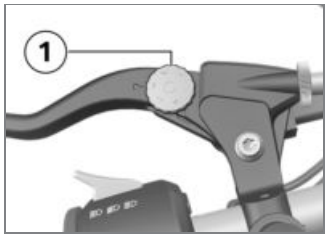
Adjusting the clutch lever

WARNING

Adjusting the clutch lever while riding

Risk of accident

- Adjust the clutch lever only when the motorcycle is at a standstill.◀



- Turn adjusting screw **1** clockwise to increase the span between the clutch lever and the handlebar grip.
- Turn adjusting screw **1** anticlockwise to reduce the span between the clutch lever and the handlebar grip.

NOTICE

The adjusting screw can be turned more easily if the clutch lever is pushed forward.◀

Brakes

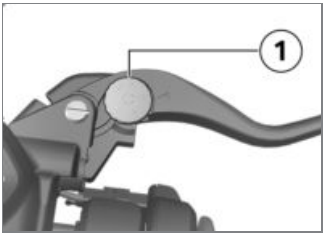
Adjusting brake lever

WARNING

Relocated brake fluid tank
Air in the brake system
- Do not turn the handlebars or the handlebar fitting on the handlebar.◀

WARNING

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



- Turn adjusting screw **1** anticlockwise to increase the span between the brake lever and the handlebar grip.
- Turn adjusting screw **1** clockwise to reduce the span between the brake lever and the handlebar grip.

NOTICE

The adjusting screw is easier to turn if you push the brake lever forward.◀

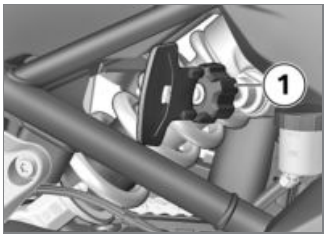
Spring preload

Adjustment

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

Adjusting spring preload for rear wheel

- Removing seat (➠ 127).
- Removing the toolkit.



WARNING

Spring preload setting and spring-strut damping setting not matched.

Impaired handling.

- Adjust spring-strut damping to suit spring preload.◀
- If you want to increase spring preload, use the tool from the toolkit to turn adjuster knob **1** clockwise.
- If you want to reduce spring preload, use the tool from the toolkit to turn adjuster knob **1** anticlockwise.

Basic setting of spring preload, rear
– without Dynamic ESA OE
Turn the adjuster knob counter-clockwise as far as it will go. (One-up without luggage)
Turn the adjuster knob counter-clockwise as far as it will go, then back it off 20 turns in the clockwise direction. (One-up with luggage)
Turn the adjuster knob clockwise as far as it will go. (Two-up with luggage)◁

- Stow the on-board toolkit in its correct position.
- Installing seat (➠ 128).

Damping

Adjustment

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

– An uneven surface requires softer damping than a smooth surface.

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

Adjusting the damping characteristic for rear wheel

- Place the motorcycle on its stand on firm, even ground.



- Adjust the damping action by turning adjusting screw **1**.



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

Basic setting of rear-suspension damping characteristic
– without Dynamic ESA OE
Turn the adjusting screw as far as it will go clockwise, then back it off 1.5 turns. (One-up without luggage)
Turn the adjusting screw as far as it will go clockwise, then back it off 0.5 turns. (One-up with luggage)
Turn the adjusting screw as far as it will go clockwise, then back it off 0.25 turn. (Two-up with luggage)◁

Riding

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Off-roading 173
Brakes 174
Parking your motorcycle 176
Refuelling 177
Securing motorcycle for transportation 180

Safety instructions

Rider's equipment

The following clothing will protect you on every ride:
– Helmet
– Suit
– Gloves
– Boots

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

Restricted angle of heel

– with low-slung[OE]

A motorcycle with lowered suspension has less ground clearance and cannot corner at angles of heel as extreme as those achievable by a counterpart motorcycle with standard-height suspension (see the section entitled "Technical data").

WARNING

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

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

Lowering the motorcycle's suspension shortens suspension travel. Ride comfort might be restricted as a result. Be sure to adjust spring preload accordingly, particularly for riding two-up.

Load correctly

WARNING

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

– with case[OA]
- Ensure that the case volumes on the left and right are equal.

- Make sure that the weight is uniformly distributed between right and left.
- Pack heavy items at the bottom of the cases and toward the inboard side.
- Note the maximum permissible payload and the speed limit for riding with cases fitted, as stated on the label inside the case (see also the section entitled "Accessories").◁

– with topcase OA
- Note the maximum permissible payload and the speed limit for riding with topcase fitted, as stated on the label inside the case (see also the section entitled "Accessories").◁

– with tank bag OA
- Note the maximum permissible payload of the tank rucksack (see also the section entitled "Accessories").


Payload of tank rucksack

max 5 kg◁

– with rear softbag OA
- Note the maximum permissible payload of the rear softbag (see also the section entitled "Accessories").


Payload of rear softbag

max 1.5 kg◁

Speed

If you ride at high speed, always bear in mind that various boundary conditions can adversely affect the handling of your motorcycle, e.g.:
– Spring-strut and shock-absorber system not set up correctly
– Imbalanced load
– Loose clothing
– Insufficient tyre pressure
– Poor tyre tread
– Added luggage systems such as cases, topcase and tank rucksack.

Maximum speed with knobbly tyres or winter tyres

⚠ DANGER

Maximum speed of the motorcycle is higher than the permissible maximum rated speed of the tyres

Risk of accident due to tyre damage at high speed
- Comply with the tyre-specific speed restrictions.◀

Always bear the maximum permissible speed of the tyres in mind when riding a motorcycle fitted with knobbly tyres or winter tyres.

Affix a label stating the maximum permissible speed to the instrument panel in the rider's field of vision.

Risk of poisoning

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

WARNING

Exhaust gases adversely affecting health

Risk of asphyxiation

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

Risk of burn injury

CAUTION

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

Risk of burn injury

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

Catalytic converter

If misfiring causes unburned fuel to enter the catalytic converter, there is a danger of overheating and damage.

The following guidelines must be observed:

– Do not run the fuel tank dry
– Do not attempt to start or run the engine with a spark-plug cap disconnected
– Stop the engine immediately if it misfires
– Use only unleaded fuel
– Comply with all specified maintenance intervals.

ATTENTION

Unburned fuel in catalytic converter

Damage to catalytic converter

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

Risk of overheating

ATTENTION

Engine running for prolonged period with vehicle at standstill

Overheating due to insufficient cooling; in extreme cases vehicle fire

- Do not allow the engine to idle unnecessarily.
- Ride away immediately after starting the engine.◀

Tampering

ATTENTION

Tampering with the motorcycle (e.g. engine management ECU, throttle valves, clutch)

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

- Do not tamper with the vehicle in any way that could result in tuned performance.◀

Comply with checklist

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

When changing the load status:

– without Dynamic ESA OE

- Adjusting spring preload for rear wheel (➠ 160).
- Adjusting the damping characteristic for rear wheel (➠ 161).◁

– with Dynamic ESA OE

- Adjusting the chassis and suspension (➠ 115).◁

Always before riding off:

- Check operation of the brake system.
- Check operation of the lights and signalling equipment.
- Checking clutch function (➠ 206).
- Checking tyre tread depth (➠ 210).
- Checking tyre pressure (➠ 209).
- Check that cases and luggage are securely held in place.

Every 3rd refuelling stop:

- Checking engine oil level (➠ 200).
- Checking front brake pad thickness (➠ 203).
- Checking rear brake pad thickness (➠ 203).
- Checking brake-fluid level, front brakes (➠ 204).
- Checking the brake-fluid level, rear brakes (➠ 205).
- Check coolant level (➠ 207).
- Lubricating chain (➠ 232).
- Checking chain sag (➠ 232).

Starting

Starting the engine

ATTENTION

Sufficient gearbox lubrication only with the engine is running.

Gearbox damage

- Do not allow the motorcycle to roll for a lengthy period of time or push it a long distance with the engine switched off.◀
- Switching on ignition (➠ 87).

» Pre-Ride-Check is performed. (➠ 168)
» ABS self-diagnosis is in progress. (➠ 169)
» ASC self-diagnosis is in progress. (➠ 170)
– with riding modes Pro[OE]
» DTC self-diagnosis is in progress. (➠ 170)◁

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

NOTICE

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

- When starting a cold engine at low ambient temperatures: disengage the clutch and turn the throttle grip slightly to open the throttle.



- Press the starter button **1**.

NOTICE

The start attempt is automatically interrupted if battery voltage is too low. Recharge the battery before you start the engine, or use jump leads and a donor battery to start.

See the subsection on jump starting in "Maintenance" for more details.◀

The engine starts.

» If the engine refuses to start, consult the troubleshooting chart in the section entitled "Technical data". (➠ 258)

Pre-Ride-Check

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

Phase 1

All indicator and warning lights are switched on.

After a longer vehicle standstill period, an animation is displayed when the system starts up.

Phase 2

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

Phase 3

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

The malfunction indicator lamp only goes out after 15 seconds.

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

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

ABS self-diagnosis

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

Phase 1

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



The ABS indicator light flashes.

Phase 2

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



The ABS indicator light flashes.

ABS self-diagnosis completed

» The ABS indicator and warning light goes out.

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

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

- You can continue to ride. Bear in mind that the ABS function is not available.
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

ASC self-diagnosis

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

Phase 1

» Test of the diagnosable system components with the vehicle at a standstill.



ASC indicator and warning light slow-flashes.

Phase 2

» Test of the diagnosis-compatible system components while the motorcycle is on the move.



ASC indicator and warning light slow-flashes.

ASC self-diagnosis completed

» The ASC indicator and warning light goes out.

• Check all the indicator and warning lights.

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

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

• You can continue to ride. Bear in mind that the ASC function is not available.
• Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

DTC self-diagnosis

– with riding modes Pro OE

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

Phase 1

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



DTC indicator and warning light flashes slowly.

Phase 2

» Drive off test of the system components with diagnostic capability.



DTC indicator and warning light flashes slowly.

DTC self-diagnosis completed

» The DTC symbol no longer shows.

- Check all the indicator and warning lights.

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

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

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

Running in

Engine

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

 Running-in speed
<6500 min^{-1} (Odometer reading 0...1200 km)

 Running-in speed
No full load (Odometer reading 0...1200 km)

- Note the mileage after which the running-in check should be carried out.

 Mileage until the first running-in check
500...1200 km

Brake pads

New brake pads have to be run in before they can achieve their optimum friction levels. The reduced braking effect can be compensated for by greater pressure on the brake lever.

WARNING

New brake pads
Longer stopping distance, risk of accident
- Apply the brakes in good time.◀

Tyres

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

WARNING

New tyres losing grip on wet roads and at extreme bank angles
Risk of accident
- Ride carefully and avoid extremely sharp inclines.◀

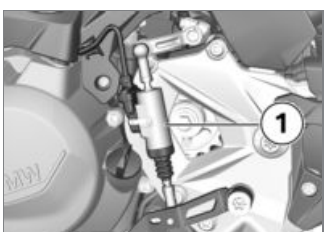
Shifting gear

– with shift assistant Pro OE

Shift assistant Pro

NOTICE

Whenever the Pro shift assistant shifts gears, cruise control is automatically disengaged for safety reasons.◀



- Select the gears in the usual way by using the foot-operated gearshift lever.

» The shift assistant assists upshifts and downshifts without the rider having to pull the clutch or close the throttle.

– This is not an automatic-shift system.
– The rider is the most important part of the system and decides when to shift gears.
– The sensor **1** on the gearshift shaft registers the gearshift request and triggers shift assistance.

» When riding at a steady speed in a low gear at high engine rpm, an attempt to shift gear without pulling the clutch can cause a severe load-change reaction.

– BMW Motorrad recommends disengaging the clutch for shifts in these circumstances.
– It is advisable to avoid using the Pro shift assistant at engine speeds close to the limits at which the governor cuts in to limit engine rpm.

» Shift assistance is not available in the following situations:
– With clutch lever pulled.
– Shift lever not in its initial position
– Upshifts with the throttle valve closed (coasting overrun) and when decelerating.
– When changing down with the throttle valve open or when accelerating.
• After a gearshift, you must fully release the gearshift lever before the gear can be shifted again with the Pro shift assistant.
» See the section "Engineering details" for more information on the Pro shift assistant:
– with riding modes Pro OE
» Shift assistant Pro (➠ 194)◁

Off-roading

After off-roading

BMW Motorrad recommends checking the following after riding the motorcycle off-road:

Tyre pressure

⚠ WARNING

Lower tyre pressure for off-roading in operation on smooth roads

Risk of accident due to impaired driving characteristics.

• Always check that the tyre pressures are correct.◀

Brakes

⚠ WARNING

Driving on unpaved or dirt roads

Delayed braking efficiency due to soiled brake disks and brake pads.

• Brake early until the brakes are clean.◀

ATTENTION

Riding on unsurfaced or dirty roads

Increased brake pad wear

• Check the thickness of the brake pads more frequently and replace the brake pads in good time.◀

Spring preload and shock-absorber settings

⚠ WARNING

Changed values for spring preload and spring strut damping for off-roading

Impaired driving characteristics on paved roads

• Before leaving the off-road terrain, set the correct spring preload and shock absorption.◀

Rims
BMW Motorrad recommends checking the rims for damage after off-roading.

Air filter element

ATTENTION

Dirty air filter element
Engine damage
- If you ride in dusty terrain check the air filter element for clogging at shorter intervals; clean or replace as necessary.◀

Operation in very dusty conditions (desert, steppes, or the like) necessitates the use of air filter elements specially designed for conditions of this nature.

Brakes

How can stopping distance be minimised?

Each time the brakes are applied, a load distribution shift takes place with the load shifting forward from the rear to the front wheel. The sharper the vehicle decelerates, the more load is shifted to the front wheel. The higher the wheel load, the more braking force can be transmitted without the wheel locking.
To optimise stopping distance, apply the front brakes rapidly and keep on increasing the force you apply to the brake lever. This makes the best possible use of the dynamic increase in load at the front wheel. Remember to pull the clutch at the same time. In the "panic braking situations" that are trained so frequently, braking force is applied as rapidly as possible and with the rider's full force applied to the brake levers; under these circumstances, the dynamic shift in load distribution cannot keep pace with the increase in deceleration and the tyres cannot transmit the full braking force to the surface of the road. Under these circumstances the front wheel can lock up.
BMW Motorrad ABS prevents the front wheel from locking up.

Panic braking

If the vehicle decelerates sharply above 50 km/h, the brake light will flash rapidly to warn road users behind the vehicle.
If the vehicle decelerates to below 15 km/h, the hazard warning lights come on. When the speed increases to above 20 km/h, the hazard warning lights are switched off again automatically.

Descending mountain passes

WARNING

Braking only with the rear brake on mountain descents
Brake fade, destruction of the brakes due to overheating
- Use both front and rear brakes, and make use of the engine's braking effect as well.◀

Wet and dirty brakes

Wetness and dirt on the brake discs and the brake pads diminish braking efficiency.
Delayed braking action or poor braking efficiency must be reckoned with in the following situations:
– Riding in the rain or through puddles of water.
– After the vehicle has been washed.
– Riding on salted or gritted roads.
– After work has been carried on the brakes, due to traces of oil or grease.
– Riding on dirt-covered surfaces or off-road.

WARNING

Wetness and dirt result in diminished braking efficiency
Risk of accident
- Apply the brakes lightly while riding to remove wetness and dirt, or dismount and clean the brakes.
- Think ahead and brake in good time until full braking efficiency is restored.◀

ABS Pro

– with riding modes Pro OE

Physical limits applicable to motorcycling

WARNING

Braking when cornering
Risk of crash despite ABS Pro
- Invariably, it remains the rider's responsibility to adapt riding style to riding conditions.
- Do not take risks that would negate the additional safety offered by this system.◀

ABS Pro is available in all riding modes except Enduro PRO.

Possibility of a fall not precluded

Although ABS Pro provides the rider with valuable assistance and constitutes a huge advance in safety for braking with the motorcycle banked for cornering, it cannot under any circumstances be considered as redefining the physical limits that apply to mo-

torcycling. It is still possible for these limits to be overshot due to misjudgement or rider error. In extreme cases this can result in a crash.

Use on public roads

ABS Pro helps make the motorcycle even safer for riding on public roads. When the brakes are applied because of an unforeseen hazard when the motorcycle is banked for cornering, within the physical limits that apply to motorcycling the system prevents the wheels from locking and skidding away.

NOTICE

ABS Pro was not developed to enhance individual braking performance with the motorcycle banked into corners.◀

Parking your motorcycle

Side stand

- Switch off the engine.

ATTENTION

Poor ground underneath the stand

Risk of damage to parts if vehicle topples

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

ATTENTION

Additional weight placing strain on the side stand

Risk of damage to parts if vehicle topples

- Do not sit or lean on the vehicle while it is propped on the side stand.◀
- Extend the side stand and prop the motorcycle on the stand.
- If the camber of the roadway permits, turn the handlebars all the way to the left.
- The motorcycle should always face uphill on a gradient; select 1st gear.

Centre stand

– with centre stand OE

- Switch off the engine.

ATTENTION

Poor ground underneath the stand

Risk of damage to parts if vehicle topples

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

ATTENTION

Centre stand folds in due to sharp movements

Risk of damage to parts if vehicle topples

- Do not lean or sit on the vehicle with the centre stand extended.◀
- Extend the centre stand and lift the motorcycle onto the stand.

Refuelling

Fuel grade

Requirement

To ensure optimal fuel consumption, fuel should be sulphur-free or as low-sulphur as possible.

ATTENTION

Engine operation with leaded fuel

Damage to catalytic converter

- Do not attempt to run the vehicle on leaded fuel or fuel with metallic additives (e.g. manganese or iron).◀
- Fuels with a maximum ethanol content of 15%, that is E15, can be used.

	Recommended fuel grade
	Super unleaded (maximum 15% ethanol, E15) 95 ROZ/RON 90 AKI

» Pay attention to the following symbols in the fuel filler cap and on the fuel pump:





Refuelling

WARNING

Fuel is highly flammable

Risk of fire and explosion

- Do not smoke. Never bring a naked flame near the fuel tank.◀

WARNING

Escape of fuel due to heat-induced expansion if fuel tank is overfilled

Risk of falling

- Do not overfill the fuel tank.◀

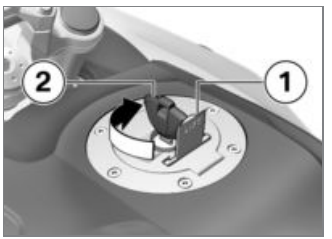
ATTENTION

Wetting of plastic surfaces by fuel

Damage to the surfaces (surfaces become unsightly or dull)

- Clean plastic surfaces immediately after contact with fuel.◀

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



- Open protective flap **1**.
- Unlock the fuel tank cap **2** of the fuel tank by turning the ignition key clockwise and open up.



- Refuel with fuel up to the lower edge of the fuel filler neck.

NOTICE

When refuelling after running on reserve, make sure that you top up the tank to a level above reserve, so that the new level is detected and the fuel reserve indicator light is switched off.◀

NOTICE

The "usable fuel capacity" specified in the technical data is the quantity that the fuel tank could hold if refilled after it had been run dry and the engine had cut out due to a lack of fuel.◀

Fuel tank capacity
approx. 15 l

Reserve fuel
approx. 3.5 l

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

Refuelling

– with Keyless Ride[OE]

Requirement

The steering lock is disengaged.

WARNING

Fuel is highly flammable
Risk of fire and explosion
- Do not smoke. Never bring a naked flame near the fuel tank.◀

WARNING

Escape of fuel due to heat-induced expansion if fuel tank is overfilled
Risk of falling
- Do not overfill the fuel tank.◀

ATTENTION

Wetting of plastic surfaces by fuel
Damage to the surfaces (surfaces become unsightly or dull)
- Clean plastic surfaces immediately after contact with fuel.◀

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

– with Keyless Ride OE

- Switching off ignition (➠ 90).

NOTICE

The fuel filler cap can be opened within the defined waiting time after the ignition has been switched off, without the radio-operated key being within range.◀

Waiting time for opening fuel filler cap
2 min

» There are **two variant ways** of opening the fuel filler cap:

– Within the waiting time.

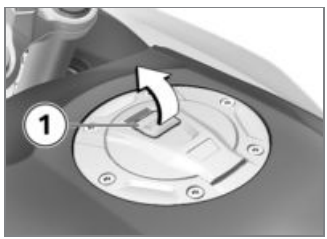
– After the waiting time has expired.

Version 1

– with Keyless Ride OE

Requirement

Within the after-running period



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

» Fuel filler cap unlocks.

- Fully open the fuel filler cap.

Version 2

– with Keyless Ride OE

Requirement

After the waiting time has expired

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

» The indicator light for the radio-operated key flashes while the search for the radio-operated key is in progress.

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

» Fuel filler cap unlocks.

- Fully open the fuel filler cap.



- Refuel with fuel of the grade stated above; do not fill the tank past the bottom edge of the filler neck.

NOTICE

When refuelling after running on reserve, make sure that you top up the tank to a level above reserve, so that the new level is detected and the fuel reserve indicator light is switched off.◀

NOTICE

The "usable fuel capacity" specified in the technical data is the quantity that the fuel tank could hold if refilled after it had been run dry and the engine had cut out due to a lack of fuel.◀

Fuel tank capacity
approx. 15 l

Reserve fuel
approx. 3.5 l

- Press down firmly on the filler cap of the fuel tank.

» The fuel filler cap engages with an audible click.

» The fuel filler cap locks automatically when the waiting time expires.

» The engaged fuel filler cap locks immediately when you secure the steering lock or switch on the ignition.

Securing motorcycle for transportation

- Make sure that all components that might come into contact with straps used to secure the motorcycle are adequately protected against scratching. Use adhesive tape or soft cloths, for example, for this purpose.

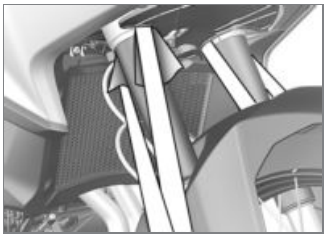


ATTENTION

Vehicle topples to side when being lifted on to stand

Risk of damage to parts if vehicle topples

- Secure the vehicle to prevent it toppling, preferably with the assistance of a second person.◀
- Push the motorcycle onto the transportation flat and hold it in position: do not place it on the side stand or centre stand.



ATTENTION

Trapping of components

Component damage

- Do not trap components such as brake lines or cable legs.◀
- At the front, secure the straps to the bottom fork bridge on both sides and tighten the straps.



- Secure the straps behind on both sides on the rear frame and tighten.
- Tighten all tensioning straps evenly.

Engineering details

General instructions 184
Anti-lock brake system (ABS) 184
Automatic Stability Control (ASC) 186
Dynamic Traction Control (DTC) 188
Riding mode 190
Tyre pressure monitoring (RDC) 192
Shift assistant 194

General instructions

To find out more about engineering, go to:
bmw-motorrad.com/technology

Anti-lock brake system (ABS)

How does ABS work?

The amount of braking force that can be transferred to the road depends on factors that include the coefficient of friction of the road surface. Loose stones, ice and snow or a wet road all have much lower coefficients of friction than a clean, dry asphalt surface. The lower the coefficient of friction, the longer the braking distance.
If the rider increases braking pressure to the extent that braking force exceeds the maximum transferable limit, the wheels start to lock and the motorcycle loses its directional stability; a fall is imminent. Before this situation can occur, ABS intervenes and adapts braking pressure to the maximum transferable braking force, so the wheels continue to turn and directional stability is maintained irrespective of the condition of the road surface.

What are the effects of surface irregularities?

Humps and surface irregularities can cause the wheels to lose contact temporarily with the road surface; if this happens the braking force that can be transmitted to the road can drop to zero. If the rider brakes in this situation, the ABS has to reduce the brake pressure in order to ensure driving stability when resuming contact with the road. At this instant, BMW Motorrad ABS must act on the assumption of an extremely low coefficient of friction (gravel, ice, snow), so that the wheels will continue to rotate under all imaginable circumstances meaning that driving stability is ensured. As soon as is registers the actual circumstances, the system reacts instantly and adjusts braking force accordingly to achieve optimum braking.

Rear wheel lift

Under very severe and sudden deceleration, however, under certain circumstances it is possible that the BMW Motorrad ABS will be unable to prevent the rear wheel from lifting clear of the ground. If this happens the outcome can be a highsiding situation in which the motorcycle can flip over.

WARNING

Rear wheel lift due to severe braking

Risk of falling

- When you brake sharply, bear in mind that ABS control cannot always be relied on to prevent the rear wheel from lifting clear of the ground.◀

How is the BMW Motorrad ABS designed?

BMW Motorrad ABS ensures driving stability on any surface within the possibilities of the physics of riding. The system is not optimised for special requirements that apply under extreme competitive situations off-road or on the track.

Special situations

The speeds of the front and rear wheels are compared as one means of detecting a wheel's incipient tendency to lock. If the system registers implausible values for a lengthy period the ABS function is deactivated for safety reasons and an ABS fault message is issued. Self-diagnosis has to complete before fault messages can be issued. In addition to problems with the BMW Motorrad ABS, exceptional riding conditions can also cause a fault message to be issued:

– Riding for a lengthy period with the front wheel lifted off the ground (wheelie).
– Rear wheel rotating with the vehicle held stationary by applying the front brake (burnout).
– Heating up with the motorcycle on the centre stand or an auxiliary stand, engine idling or with a gear engaged.
– Rear wheel locked for a lengthy period, for example while descending off-road.

If a fault message is issued on account of exceptional riding conditions, you can reactivate the ABS function by switching the ignition off and on again.

What is the role of regular servicing?

WARNING

Brake system not regularly serviced

Risk of accident

- In order to ensure that the BMW Motorrad ABS is always maintained in optimum condition, it is essential for you to comply strictly with the specified inspection intervals.◀

Safety reserves

BMW Motorrad ABS may not mislead the rider into a careless riding style because they can rely on shorter stopping distances. It is primarily there to provide a safety reserve for emergency situations.
Take care in bends! Braking in bends is subject to particular laws relating to the physics of riding which even BMW Motorrad ABS cannot evade.

Evolution of ABS to ABS Pro

– with ABS Pro[OE]

Until now, the BMW Motorrad ABS helped ensure a very high degree of safety for braking with the motorcycle upright and travelling in a straight line. Now ABS Pro offers enhanced safety for braking in corners as well. ABS Pro prevents the wheels from locking even under sharp braking. ABS Pro reduces abrupt changes in steering force, particularly in panic-braking situations, counteracting the vehicle's otherwise natural but undesirable tendency to straighten up.

ABS intervention

Technically speaking, depending on the riding situation ABS Pro adapts ABS intervention to the motorcycle's bank angle. Signals for rate of roll and rate of yaw and lateral acceleration are used to calculate bank angle.
As the motorcycle is heeled over more and more as it banks into a corner, an increasingly strict limit is imposed on the brake-pressure gradient for the start of brake application. This slows the build-up of brake pressure to a corresponding degree. Additionally, pressure modulation is more uniform across the range of ABS intervention.

Advantages for the rider

The advantages of ABS Pro for the rider are sensitive response and high braking and directional stability combined with best-case deceleration of the motorcycle, even when cornering.

Automatic Stability Control (ASC)

How does the ASC work?

BMW Motorrad ASC compares the speeds of the front and rear wheels. The differential is used to compute slip as a measure of the reserves of stability available at the rear wheel. The engine control intervenes and adapts the engine torque accordingly if slip exceeds a certain limit.

How is the BMW Motorrad ASC designed?

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

The system is not optimised for special requirements that apply under extreme competitive situations off-road or on the track. BMW Motorrad ASC can be deactivated in these cases.

⚠ WARNING

Risky riding

Risk of accident despite ASC

- Invariably, the rider bears responsibility for assessing road and traffic conditions and adopting his or her style of riding accordingly.
- Do not take risks that would negate the additional safety offered by this system.◀

Special situations

In accordance with the laws of physics, the ability to accelerate is restricted more and more as the angle of heel increases. Consequently, there can be a perceptible lag in acceleration out of very tight bends.

The speeds of the front and rear wheels are compared as one means of detecting the rear wheel's incipient tendency to spin or slip sideways. If the system registers implausible values for a lengthy period the ASC function is deactivated for safety reasons and an ASC fault message is issued. Self-diagnosis has to complete before fault messages can be issued.

The BMW Motorrad ASC can switch off automatically under the exceptional riding conditions outlined below.

Exceptional riding conditions:

– Riding for a lengthy period with the front wheel lifted off the ground (wheelie) with ASC deactivated.
– Rear wheel rotating with the vehicle held stationary by applying the front brake (burnout).
– Heating up with the motorcycle on the centre stand or an auxiliary stand, engine idling or with a gear engaged.

Switch the ignition off and on and subsequently ride the vehicle at a speed over 5 km/h to reactivate ASC.

If the front wheel lifts clear of the ground under sharp acceleration, the ASC reduces engine torque until the front wheel regains contact with the ground.
Under these circumstances, BMW Motorrad recommends rolling the throttle slightly closed so as to restore stability with the least possible delay.

When riding on a slippery surface, never snap the throttle grip fully closed without pulling the clutch at the same time. Engine braking torque can cause the rear wheel to lock, with a corresponding loss of stability. The BMW Motorrad ASC is unable to control a situation of this nature.

Dynamic Traction Control (DTC)

– with riding modes Pro[OE]

How does traction control work?

Traction control is available in two versions
– **without** provision for the bank angle: Automatic Stability Control ASC
– ASC is a rudimentary function intended to prevent falls.
– **with** provision for bank angle: Dynamic Traction Control DTC
– DTC regulation is more delicate and more comfortable thanks to the additional bank angle and acceleration information.

The traction control system compares the speed of rotation at the circumferences of the front wheel and the rear wheel. The differential is used to compute slip as a measure of the reserves of stability available at the rear wheel. If slip exceeds a certain limit, the engine management system intervenes and adapts engine torque accordingly.

⚠ WARNING

Risky riding
Risk of accident despite DTC
- Invariably, the rider bears responsibility for assessing road and traffic conditions and adopting his or her style of riding accordingly.
- Do not take risks that would negate the additional safety offered by this system.◀

Special situations

In accordance with the laws of physics, the ability to accelerate is restricted more and more as the angle of heel increases. Consequently, there can be a per-

ceptible reduction in acceleration out of very tight bends.

The speeds of the front and rear wheels are compared and DTC, unlike ASC, also takes the bank angle into account in processing data to detect the rear wheel's incipient tendency to spin or slip sideways.

If the electronic processor receives values for the bank angle that it considers implausible over a lengthy period, a dummy value is used for the bank angle or the DTC function is switched off. Under these circumstances the indicator for a DTC fault shows. Self-diagnosis has to complete before fault messages can be issued.
The BMW Motorrad Traction Control can shut down automatically under the exceptional riding conditions outlined below.

Exceptional riding conditions:

– Riding for a lengthy period with the front wheel lifted off the ground (wheelie).
– Rear wheel rotating with the vehicle held stationary by applying the front brake (burnout).
– Heating up with the motorcycle on an auxiliary stand, in neutral or with a gear engaged.

If the encoding plug is not inserted, the DTC is reactivated after a fault has occurred by switching the ignition off and on and then by continuing to drive at minimum speed.

 Minimum speed for activation of DTC
min 5 km/h

If the front wheel lifts clear of the ground under severe acceleration, the ASC or DTC reduces engine torque in the RAIN and ROAD riding modes until the front wheel regains contact with the ground.
The ENDURO and ENDURO PRO riding modes are designed for off-road operation and not for on-road operation.
Front wheel lift-off detection allows brief wheelies in the DYNAMIC and ENDURO riding modes.
In ENDURO PRO riding mode, the front wheel lift-off detection is switched off.
BMW Motorrad recommends turning the throttle grip back slightly when lifting the front wheel in order to reach a stable driving condition again as soon as possible.

When riding on a slippery surface, never snap the throttle grip fully closed without pulling the clutch at the same time. Engine braking torque can cause the rear wheel to skid, with a corresponding loss of stability. The BMW Motorrad DTC is unable to control a situation of this nature.

Riding mode

Selection

To adjust the motorcycle to the road condition and the desired driving experience, the following riding modes can be selected:
– RAIN
– ROAD (standard mode)

– with riding modes Pro OE
– DYNAMIC
– ENDURO

If the encoding plug is fitted, the ENDURO PRO riding mode replaces the ENDURO riding mode.

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

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

ABS and/or ASC/DTC can be switched off in every riding mode. The following explanations always refer to the driving safety systems that are switched on.

Throttle response
– In the RAIN and ENDURO riding modes: the engine response is moderated.
– In the ROAD and ENDURO PRO riding modes: the engine response is optimal and direct.
– In the DYNAMIC riding mode: the engine response is optimal and dynamic.

ABS
– Rear wheel lift-off detection is activated in all riding modes except ENDURO PRO.
– Rear wheel lift-off detection is reduced in the DYNAMIC and ENDURO riding modes to achieve an enhanced braking effect.
– ABS is set to on-road mode in the RAIN, ROAD, and DYNAMIC riding modes.
– ABS is set to off-road mode with road tyres in ENDURO riding mode.

– with riding modes Pro OE
– There is no ABS control at the rear wheel when the footbrake lever is operated in ENDURO PRO riding mode. ABS is ad-

justed to off-road operation using road tyres.
– ABS Pro is fully available in the RAIN, ROAD and DYNAMIC riding modes. The tendency of the motorcycle to straighten up when the brakes are applied with the machine banked for cornering is reduced to a minimum.
– ABS Pro is available only in conditions with a good coefficient of friction in ENDURO riding mode. Support is reduced compared with ROAD riding mode and instead, it is configured to generate a maximum braking effect.
– ABS Pro is not available in ENDURO PRO riding mode.

– without riding modes Pro[OE]

ASC

– The front wheel lift-off detection is activated in all riding modes.
– ASC is calibrated for on-road operation.
– ASC provides high driving stability in ROAD riding mode and maximum driving stability in RAIN riding mode.

– with riding modes Pro[OE]

DTC

Tyres

– DTC is set to on-road operation with road tyres in the RAIN, ROAD and DYNAMIC riding modes.
– DTC is set to off-road operation with road tyres in the ENDURO riding mode.
– DTC is set to off-road operation with off-road tyres in the ENDURO PRO riding mode.

Driving stability

– DTC intervenes early enough to achieve maximum driving stability in the RAIN riding mode.
– DTC intervenes later than in the RAIN riding mode in the ROAD riding mode. This prevents the rear wheel from spinning whenever possible.
– The front wheel is prevented from lifting in the RAIN and ROAD riding modes.
– DTC intervenes later than in the ROAD riding mode in the DYNAMIC riding mode, so that inducing slight drift when exiting corners and brief wheelies are possible.
– DTC intervenes even later in the ENDURO riding mode and is set to off-road operation so that longer drifts and short wheelies are possible when exiting corners.
– DTC control assumes that studded tyres are used when off road in ENDURO PRO riding mode. Longer wheelies and wheelies in slight lean angles are permitted. The

front wheel lift-off detection is switched off which may cause rollover to the rear in extreme cases.

Mode changes

The riding mode can be changed while the vehicle is stationary with the ignition on. It is possible to change it while driving under the following conditions:

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

The following steps must be taken to change the riding mode:

– Close the throttle twistgrip.
– Release the brake levers.

The desired riding mode is initially preselected. The mode change does not take place until the systems in question are all in the appropriate state.

The selection menu does not disappear from the display until the mode change has taken place.

Tyre pressure monitoring (RDC)

– with tyre pressure control (RDC) OE

Function

A sensor integrated into each tyre measures the air temperature and the air pressure inside the tyre and transmits this information to the control unit. The sensors are fitted with a centrifugal-force trip switch which allows the measured values to be transmitted after the minimum speed is exceeded the first time.

 Minimum speed for transmission of the RDC measured values:
min 30 km/h

The display shows –– for each tyre until the tyre-pressure signal is received for the first time. The sensors continue to transmit the measured-value signals for some time after the vehicle comes to a stop.

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

An error message is issued if wheels without sensors are fitted to a vehicle equipped with an RDC control unit.

Tyre pressure ranges

The RDC control unit differentiates between three tyre-pressure ranges, all of which are parametrised for the motorcycle:

- Tyre pressure within permitted tolerance.
- Tyre pressure close to limit of permitted tolerance.
- Tyre pressure outside permitted tolerance.

Temperature compensation

Tyre pressure is a temperature-sensitive variable: pressure increases as tyre-air temperature rises and decreases as tyre-air temperature drops. Tyre-air temperature depends on ambient temperature as well as on the style of riding and the duration of the ride.

 The tyre pressures are shown in the display as temperature compensated and always refer to the following tyre air temperature:
20 °C

The air lines available to the public in petrol stations and motorway service areas have gauges that do not compensate for temperature; the reading shown by a gauge of this nature is the temperature-dependent tyre-air pressure. As a result, the values displayed there usually do not correspond to the values displayed in the display.

Pressure adaptation

Compare the RDC value on the display with the value in the table on the back cover of the rider's manual. Then use the air-line gauge at a service station to compensate for the difference between the RDC reading and the value in the table.

 Example
According to the Rider's Manual, the tyre pressure should be the following value:
2.5 bar
The following value is shown in the display:
2.3 bar
Missing:
0.2 bar
The tester on the filling station shows:
2.4 bar
The tyre pressure must be increased to the following value to reach the correct tyre pressure:
2.6 bar

Shift assistant

– with riding modes Pro OE

Shift assistant Pro

Your vehicle is equipped with the shift assistant Pro, which was initially developed for racing and has been adapted for touring. It permits upshifts and downshifts without declutching or closing the throttle in virtually all load and rpm ranges.

Advantages

– 70-80 % of all gearshifts on a trip can be done without using the clutch.
– Less relative movement between rider and passenger because the shift pauses are shorter.
– It is not necessary to close the throttle valve when shifting under acceleration.
– When braking and downshifting (throttle valve closed), engine speed is adjusted by blipping the throttle.
– Shift time is shorter than a gearshift with clutch actuation.

In order for the system to identify a request for a gearshift, the rider has to move the shift lever from its idle position in the desired direction against the force of the spring through a certain "overtravel" at ordinary speed or rapidly and keep the shift lever in this position until the gearshift is completed. It is not necessary to increase the force applied to the shift lever while shifting is in progress. Once the gearshift has completed the shift lever has to be fully released before another gearshift with the Pro shift assistant can take place. Keep the corresponding load condition (throttle grip position) constant before and during the gear shift for gear shifts using the shift assistant Pro. A change in the position of the throttle twistgrip during a gearshift can cause the function to abort and/or lead to a missed shift. The shift assistant Pro provides no assistance for the gear change if the rider declutches.

Downshifting

– Downshifting is assisted until maximum rpm for the target gear to be selected is reached. This prevents overrevving.

 Maximum engine speed
max 9000 min^{-1}

Upshifting

- Upshifting is assisted until idle rpm for the target gear to be selected is reached.
- This prevents the engine from dropping below idle speed.

 Idle speed
1250 min^{-1} (Engine at regular operating temperature)

Maintenance

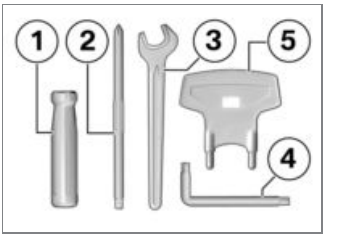
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General instructions

The "Maintenance" chapter describes straightforward procedures for checking and replacing certain wear parts.
Special tightening torques are listed as applicable. The tightening torques for the threaded fasteners on your vehicle are listed in the section entitled "Technical data".
You will find information on more extensive maintenance and repair work in the Repair Manual on DVD for your vehicle, which is available from your authorised BMW Motorrad Retailer.

Some of the work calls for special tools and a thorough knowledge of the technology involved. If you are in doubt, consult a specialist workshop, preferably your authorised BMW Motorrad Retailer.

Toolkit



1 Screwdriver handle

2 Reversible screwdriver blade
With star-head and plain-tip ends
- Replacing bulbs for front and rear turn indicators (➠ 221).
- Replacing the licence plate bulb (➠ 223).
- Removing battery (➠ 228).
- Adjusting the damping characteristic for rear wheel (➠ 161).

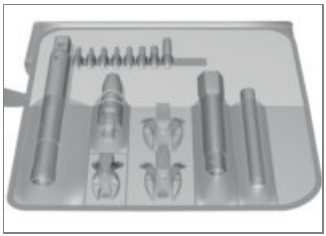
3 Open-ended spanner
Width across flats 14
- Adjusting mirror arm (➠ 158).

4 Torx wrench, T25/T30
T25 on short end, T30 on long end
- Removing the tank cover (➠ 224).

5 Hand lever
- Adjusting spring preload for rear wheel (➠ 160).

Service tool kit

– with service toolkit[OA]



BMW Motorrad has put together a service tool set suitable for your motorcycle for more advanced service operations (e.g. removing and refitting the wheels). This tool set is available from your authorised BMW Motorrad Retailer.

Front-wheel stand

Installing the front-wheel stand

ATTENTION

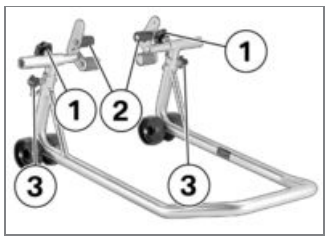
Use of the BMW Motorrad front-wheel stand without also using the auxiliary stand

Risk of damage to parts if vehicle topples

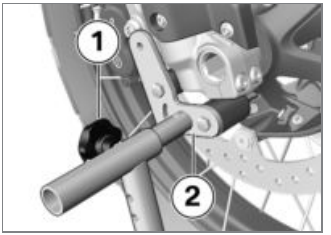
- Place the motorcycle on an auxiliary stand before lifting the front wheel with the BMW Motorrad front-wheel stand.◀
- Place the motorcycle on a suitable auxiliary stand.

– with centre stand OE

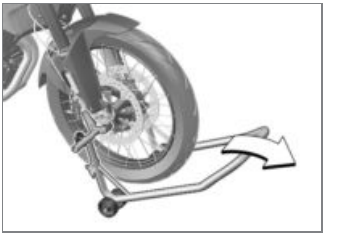
- Make sure the ground is level and firm and place the motorcycle on its centre stand.◁
- Use basic stand with tool number (83 30 0 402 241) in combination with the front-wheel holder (83 30 0 402 242).



- Loosen the mounting bolts **1**.
- Push the two adapters **2** apart until the front suspension fits between them. Adjust the adapter studs to suit the front suspension.
- Use the retaining pins **3** to set the front-wheel stand to the desired height.
- Centre the front-wheel stand relative to the front wheel and push it against the front axle.



- Align the two adapters **2** so that the front suspension is securely seated.
- Tighten mounting bolts with wheel **1**.



- Apply uniform pressure to push the front-wheel stand down and raise the motorcycle.

– with centre stand OE

ATTENTION

Centre stand retracts if the vehicle lifted too high

Risk of damage to parts if vehicle topples

- When raising the vehicle, make sure that the centre stand remains on the ground.
- If necessary, adjust the height of the front-wheel stand.◀
- Make sure the motorcycle is standing firmly.◁

Engine oil

Checking engine oil level

ATTENTION

Misinterpretation of oil level reading, because oil level is temperature-dependent (the higher the temperature, the higher the oil level)

Engine damage

- Check the oil level only after a lengthy ride or when the engine is at operating temperature.◀
- Wipe the area around the oil filler neck clean.
- Allow the engine to idle until the fan starts up, then allow it to idle one minute longer.
- Switch off the engine.

- Make sure the engine is at operating temperature and hold the motorcycle upright.

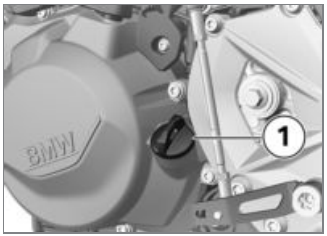
– with centre stand OE

ATTENTION

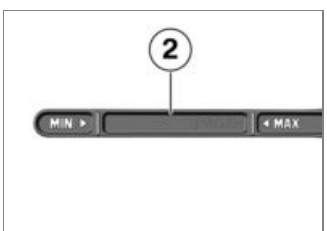
Vehicle topples to side when being lifted on to stand

Risk of damage to parts if vehicle topples

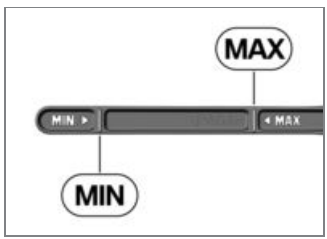
- Secure the vehicle to prevent it toppling, preferably with the assistance of a second person.◀
- Check that the engine is at operating temperature, make sure the ground is level and firm and place the motorcycle on its centre stand.◁



- Wait a minute.
- Remove oil dipstick **1**.



- Clean measuring area **2** with a dry cloth
- Place the oil dipstick on the oil filler opening, but do not screw it in.
- Remove the oil dipstick and check the oil level.



Engine oil, specified level
Between **MIN** and **MAX** mark

Engine oil, quantity for topping up
Product recommended by BMW Motorrad: ADVANTEC Ultimate oil, SAE 5W-40, API SL / JASO MA2
max 0.5 l (Difference between MIN and MAX)

If the oil level is below the MIN mark:

- Topping up the engine oil (➠ 202).

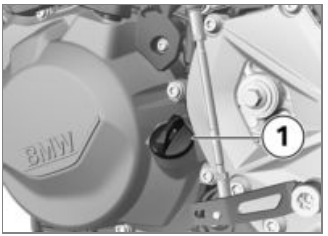
If the oil level is above the MAX mark:

- Have the oil level corrected by a specialist workshop, preferably an authorised BMW Motorrad dealer.

- Fit oil dipstick.

Topping up the engine oil

- Place the motorcycle on its stand on firm, even ground.
- Wipe the area around the filler neck clean.



- Remove oil dipstick **1**.

ATTENTION

Use of insufficient engine oil or too much engine oil

Engine damage

- Always make sure that the oil level is correct.◀

- Top up the engine oil to the specified level.
- Checking engine oil level (➠ 200).
- Fit oil dipstick.

Brake system

Checking function of brakes

- Operate 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

Work on brake system not in compliance with correct procedure

Risk to operational reliability of the brake system

- Have all work on the brake system undertaken by trained and qualified specialists.◀

- Have the brakes checked by a specialist workshop, preferably

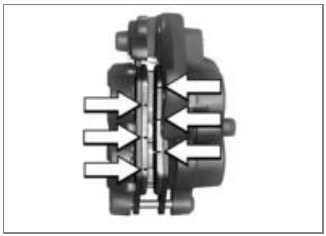
an authorised BMW Motorrad dealer.

Checking front brake pad thickness

- Place the motorcycle on its stand on firm, even ground.



- Visually inspect the left and right brake pads to ascertain their thickness. Viewing direction: between wheel and front suspension towards the brake calipers **1**.



	Brake-pad wear limit, front
min 1.0 mm (Friction pad only, without backing plate. The wear indicators, i.e. the grooves, must be clearly visible.)	

If the wear indicating marks are no longer clearly visible:

⚠ WARNING

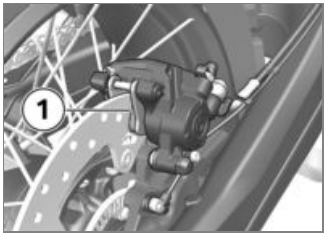
Brake-pad thickness less than permissible minimum

Diminished braking effect, damage to the brakes

- In order to ensure the dependability of the brake system, do not permit the brake pads to wear past the minimum permissible thickness.◀
- Have the brake pads replaced by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

Checking rear brake pad thickness

- Place the motorcycle on its stand on firm, even ground.



- Visually inspect the brake pads to ascertain their thickness. Viewing direction: from the rear towards the brake caliper **1**.

	Brake-pad wear limit, rear
min 1.0 mm (Friction pad only, without backing plate.)	

If the brake pads are worn:

WARNING

Brake-pad thickness less than permissible minimum

Diminished braking effect, damage to the brakes

- In order to ensure the dependability of the brake system, do not permit the brake pads to wear past the minimum permissible thickness.◀
- Have the brake pads replaced by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

Checking brake-fluid level, front brakes

WARNING

Not enough brake fluid in brake fluid tank

Considerably reduced braking power due to air in the brake system

- Adjust the riding mode immediately until the fault is rectified.
- Check the brake-fluid level at regular intervals.◀
- Make sure the ground is level and firm and place the motorcycle on its centre stand.
- Move the handlebars to the straight-ahead position.



- Check the brake fluid level in front reservoir **1**.

NOTICE

Wear of the brake pads causes the brake fluid level in the reservoir to sink.◀



Brake fluid level, front
Brake fluid, DOT4
Do not permit the brake fluid level to drop below the MIN mark. (Brake-fluid reservoir horizontal, motorcycle upright)

If the brake fluid level drops below the permitted level:

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

Checking the brake-fluid level, rear brakes

- Make sure the ground is level and firm and hold the motorcycle upright.

– with centre stand OE

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



WARNING

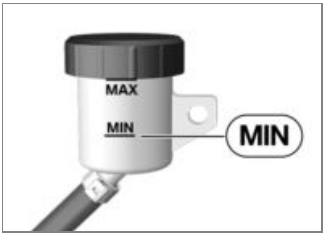
Not enough brake fluid in brake fluid tank

Considerably reduced braking power due to air in the brake system

- Adjust the riding mode immediately until the fault is rectified.
- Check the brake-fluid level at regular intervals.◀
- Check the brake fluid level in rear reservoir **1**.

NOTICE

Wear of the brake pads causes the brake fluid level in the reservoir to sink.◀



Brake fluid level, rear (visual inspection)
Brake fluid, DOT4
The brake fluid level may not drop below the **MIN** mark.

If the brake fluid level drops below the permitted level:

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

Clutch

Checking clutch function

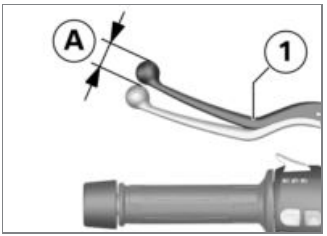
- Pull the clutch lever.

» An increase in force with increasing actuation must be perceptible.

If no increase in force with increasing actuation is perceptible:

- Have the clutch checked by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

Checking the clutch play



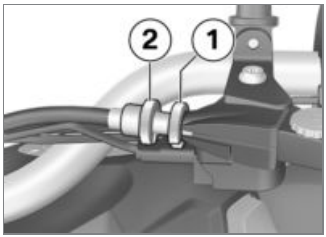
- Repeatedly pull clutch lever **1** tight against the grip.
- Pull clutch lever **1** gently until resistance is perceptible, observing the clutch play **A**.

Clutch cable play
5...8 mm (Handlebars in straight-ahead position, engine cold)

Clutch play is out of tolerance:

- Adjusting clutch play (➠ 207).

Adjusting clutch play



- Loosen lock nut **1**.
- To increase clutch play, screw adjusting screw **2** into the manual controls.
- To reduce clutch play, unscrew adjusting screw **2** from the manual controls.

NOTICE

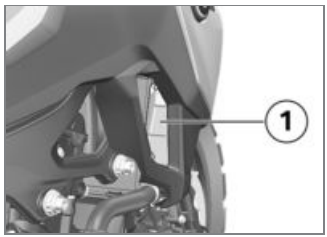
The distance between lock nut and nut (measured internally) must not exceed 14 mm. Consult a specialist workshop, preferably an authorised BMW Motorrad Retailer, should it only be possible to set the correct clutch play by unscrewing further.◀

- Checking the clutch play (➠ 206).
- Tighten lock nut **1** while holding adjusting screw **2**.

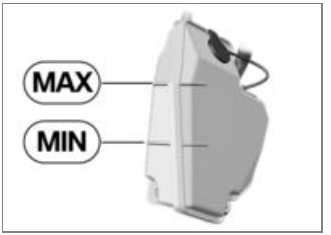
Coolant

Check coolant level

- Place the motorcycle on its stand on firm, even ground.
- Turn the handlebars all the way to the right.



- Check the coolant level in expansion tank **1**. Viewing direction: from behind through opening in right-hand side trim panel.

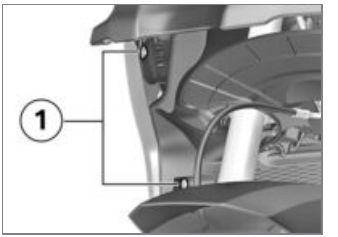


	Coolant, specified level
Between MIN - MAX-mark on the expansion tank (Engine cold)	

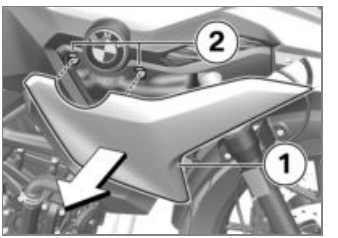
If the coolant drops below the permitted level:

- Top up the coolant.

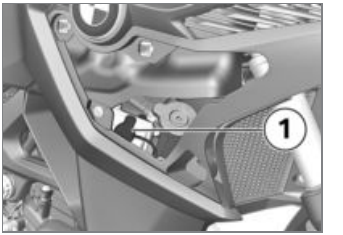
Topping up coolant



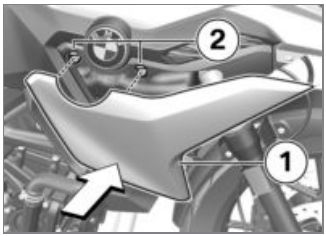
- Undo screws for the radiator cowl **1** from the inside.



- Pull radiator cowl **1** from its brackets **2**.

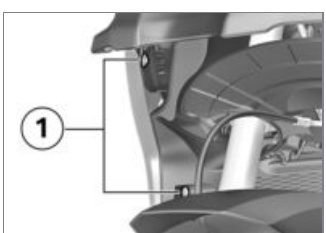


- Open cap **1** of the expansion tank.
- Top up coolant to specified level using a suitable funnel.
- Close the cap of the expansion tank.



- Insert radiator cowl **1** into the brackets **2**.

» The radiator cowl engages with an audible click.



- Tighten the radiator cowl **1** screws from the inside.

Tyres

Checking tyre pressure

WARNING

Incorrect tyre pressure
Impaired handling characteristics of the motorcycle, shorter useful tyre life

- Always check that the tyre pressures are correct.◀

WARNING

Tendency of valve inserts installed vertically to open by themselves at high riding speeds
Sudden loss of tyre pressure

- Install valve caps fitted with rubber sealing rings and tighten firmly.◀
- Place the motorcycle on its stand on firm, even ground.
- Check tyre pressures against the data below.

Tyre pressure, front
2.2 bar (One-up, tyre cold)
2.5 bar (Two-up and/or with luggage, tyre cold)

Tyre pressure, rear
2.5 bar (One-up, tyre cold)
2.9 bar (Two-up and/or with luggage, tyre cold)

If tyre pressure is too low:

- Correct tyre pressure.

Rims and tyres

Checking rims

- Place the motorcycle on its stand on firm, even ground.
- Visually inspect the rims for defects.

- Have damaged rims inspected by a specialist workshop and replaced if necessary, preferably by an authorised BMW Motorrad Retailer.

Checking spokes

- Place the motorcycle on its stand on firm, even ground.
- Use a screwdriver handle or similar object to brush over the spokes and pay attention to the sequence of sounds.

If the sequence of sounds is irregular:

- Have the spokes checked by a specialist workshop, preferably by an authorised BMW Motorrad Retailer.

Checking tyre tread depth

WARNING

Riding with badly worn tyres
Risk of accident due to impaired handling

- If applicable, have the tyres changed in good time before they wear to the minimum tread depth permitted by law.◀
- Place the motorcycle on its stand on firm, even ground.
- Measure the tyre tread depth in the main tread grooves with wear marks.

NOTICE

Wear indicators are built into the main profile grooves on each tyre. The tyre is worn out when the tyre tread has worn down to the level of the marks. The locations of the marks are indicated on the edge of the tyre, e.g. by the letters TI, TWI or by an arrow.◀

If the tyre tread is worn to minimum:

- Replace tyre or tyres, as applicable.

Wheels

Tyre recommendation

For each size of tyre, BMW Motorrad tests and classifies as roadworthy certain makes. BMW Motorrad cannot assess the suitability or provide any guarantee of road safety for other tyres.
BMW Motorrad recommends using only tyres tested by BMW Motorrad.
Detailed information is available from your authorised BMW Motorrad Retailer or online at

bmw-motorrad.com

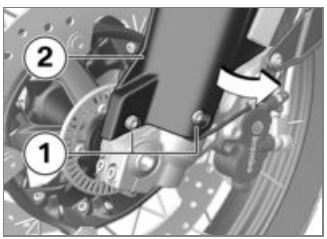
Effect of wheel size on chassis and suspension control systems

Wheel size is very important as a parameter for the ABS and ASC suspension control systems. In particular, the diameter and the

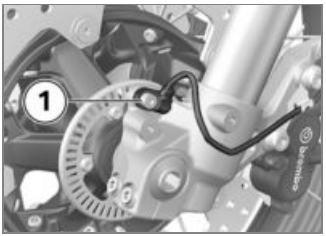
width of the vehicle's wheels are programmed into the control unit and are fundamental to all calculations. Any change in these influencing variables, caused for example by a switch to wheels other than those installed ex-works, can have serious effects on the performance of the control systems.
The sensor wheels are essential for correct wheel speed detection, and they too must match the motorcycle's control systems and consequently cannot be changed.
If you decide that you would like to fit non-standard wheels to your motorcycle, it is very important to consult a specialist workshop beforehand, preferably an authorised BMW Motorrad Retailer. In some cases, the data programmed into the control units can be changed to suit the new wheel sizes.

Removing front wheel

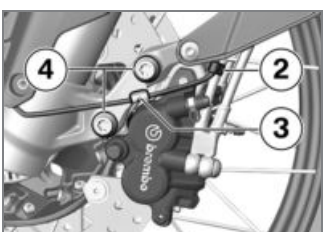
- Place the motorcycle on its stand on firm, even ground.



- Remove the bolts **1**.
- Carefully swing the lower part of the front-wheel cover **2** in the direction of the arrow.



- Remove screw **1** and remove the ABS sensor from its bore hole.



- Disengage the cable for the wheel-speed sensor from retaining clips **2** and **3**.

- Remove the screws **4** for the right-hand brake caliper.



- Force the brake pads **3** apart slightly by rotating the brake caliper **4** against the brake disc **5**.
- Mask off the parts of the wheel rim that could be scratched in the process of removing the brake calipers.

ATTENTION

Unwanted inward movement of the brake pads

Component damage on attempt to install the brake caliper or because brake pads have to be forced apart

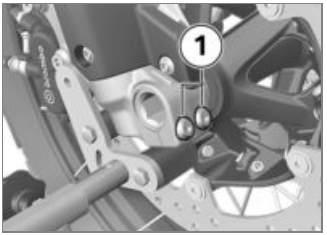
- Do not operate the brakes with a brake caliper not correctly secured.◀
- Carefully pull the brake calipers back and out until clear of the brake discs.

- Place the motorcycle on a suitable auxiliary stand.

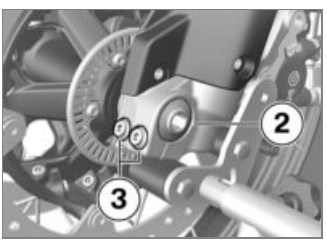
– with centre stand OE

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

- Raise front of motorcycle until the front wheel can turn freely. BMW Motorrad recommends the BMW Motorrad front-wheel stand for lifting the motorcycle.
- Installing the front-wheel stand (➠ 199).

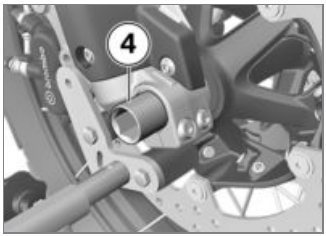


- Loosen the right axle clamping screws **1**.

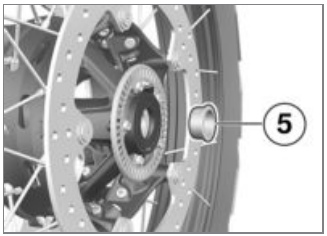


- Remove the axle screw **2**.
- Loosen the left axle clamping screws **3**.

- Push the axle in as far as it will go.



- Remove axle **4** while supporting the wheel.
- Do not remove the grease from the axle.
- Roll the front wheel forward to remove.



- Remove spacer bush **5** from the left-hand side of the wheel hub.

Installing the front wheel

WARNING

Use of a non-standard wheel

Malfunction as part of ABS and ASC control interventions

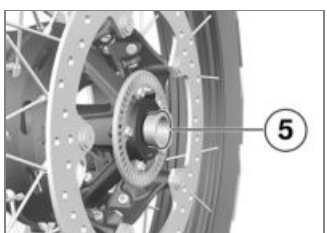
- See the information on the effect of wheel size on the ABS and ASC systems at the start of this chapter.◀

ATTENTION

Tightening threaded fasteners to incorrect tightening torque

Damage, or threaded fasteners work loose

- Always have the security of the fasteners checked by a specialist workshop, preferably an authorised BMW Motorrad dealer.◀



- Insert spacer bush **5** into the wheel hub on the left-hand side.

ATTENTION

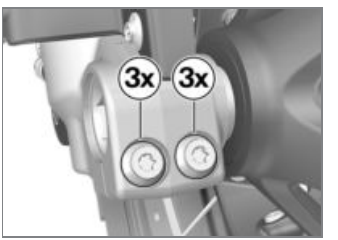
Front wheel installed wrong way round

Risk of accident

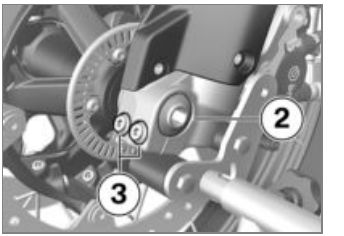
- Note direction-of-rotation arrows on tyre or rim.◀
- Roll the front wheel into the front suspension, making sure that the brake disc passes between the brake pads in the left-hand brake caliper.



- Lift front wheel and insert the axle **4** as far as the stop.
- Tighten right-hand axle clamping screws **1** to the specified torque or use a suitable tool to counter-hold for the next operation.



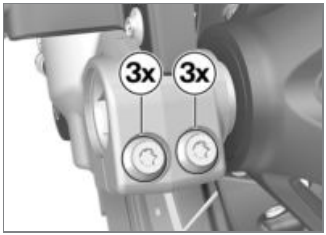
Clamp of quick-release axle
Tightening sequence: Tighten screws six times in alternate sequence
19 Nm



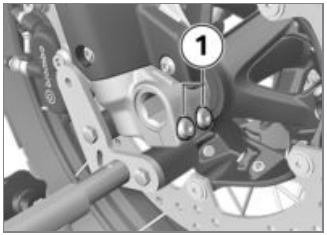
- Fit the axle screw **2** and tighten to the specified torque.

Axle screw in quick-release axle, front
50 Nm

- Tighten left-hand axle clamping screws **3** to the specified torque.



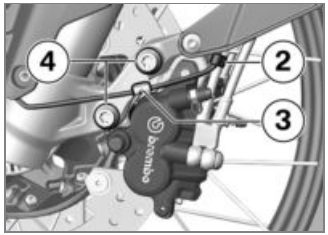
Clamp of quick-release axle
Tightening sequence: Tighten screws six times in alternate sequence
19 Nm



- Slacken the right-hand axle clamping screws **1** again if they have been tightened.
- Removing the front-wheel stand.

– without centre stand OE
- Remove auxiliary stand.◁

- Position right-hand brake caliper on brake disc.



- Fit the mounting bolts **4** and tighten to torque.

Brake caliper to telescopic fork
38 Nm

- Remove the adhesive tape from the wheel rim.

⚠ WARNING

Brake pads not lying against the brake disc

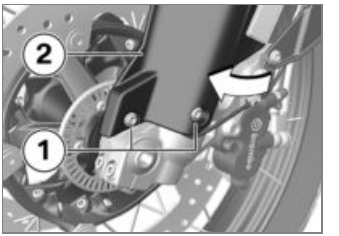
Risk of accident due to delayed braking effect.

- Before driving, check that the brakes respond without delay.◀

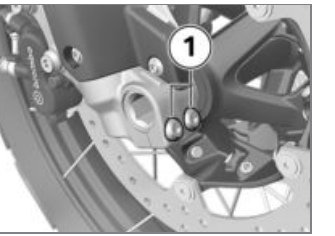
- Operate the brake several times until the brake pads are bedded.
- Seat the cable for the wheel-speed sensor in holding clips **2** and **3**.



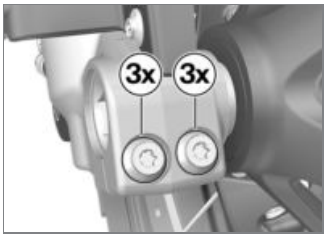
- Insert the ABS sensor into its bore hole and fit screw **1**.



- Position the lower part of the front-wheel cover **2**.
- Fit bolts **1**.
- Firmly compress the front forks several times.



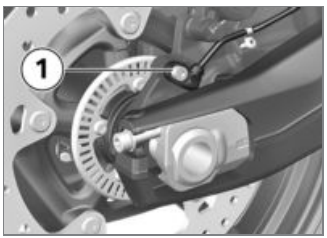
- Tighten right-hand axle clamping screws **1** to torque.



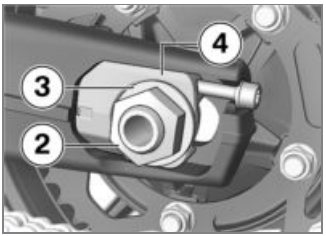
Clamp of quick-release axle
Tightening sequence: Tighten screws six times in alternate sequence
19 Nm

Removing rear wheel

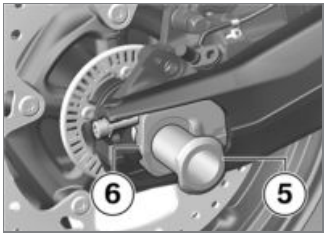
- Make sure the ground is level and firm and place the motorcycle on a suitable auxiliary stand.
  – with centre stand OE
- Make sure the ground is level and firm and place the motorcycle on its centre stand.◁



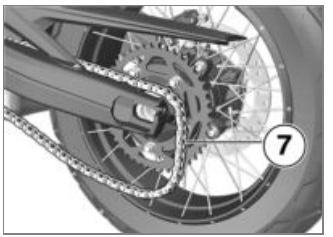
- Remove screw **1** and remove the pulse generator from its bore hole.



- Remove axle nut **2** and washer **3**.
- Remove the chain tensioner **4** and push the axle in as far as it will go.



- Remove quick-release axle **5** and chain tensioner **6**.



- Roll the rear wheel as far forward as possible and disengage chain **7** from the sprocket.
- Roll the rear wheel back until it is clear of the swinging arm.

NOTICE

The sprocket and the spacer bushes on left and right are loose fits in the wheel. Make sure that these parts are not damaged or get lost on removal.◀

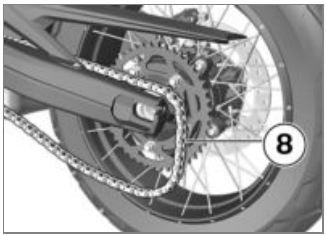
Installing the rear wheel

WARNING

Use of a non-standard wheel
Malfunction as part of ABS and ASC control interventions
- See the information on the effect of wheel size on the ABS and ASC systems at the start of this chapter.◀

ATTENTION

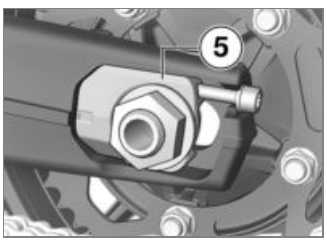
Tightening threaded fasteners to incorrect tightening torque
Damage, or threaded fasteners work loose
- Always have the security of the fasteners checked by a specialist workshop, preferably an authorised BMW Motorrad dealer.◀
- Roll the rear wheel into the swinging arm, making sure that the brake disc passes between the brake pads.



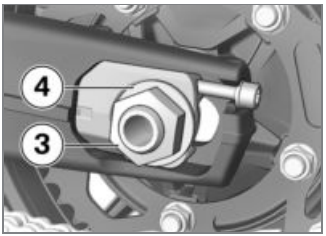
- Roll the rear wheel as far forward as possible and loop the chain **8** over the sprocket.



- Insert right-hand chain tensioner **7** in the swinging arm and fit quick-release axle **6** in the brake-caliper support and the rear wheel.
- Make sure that the axle fits into the recess in the chain tensioner.

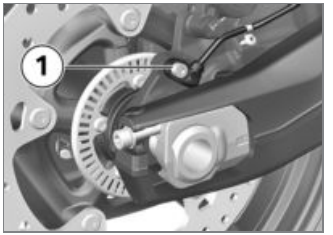


- Fit the left-hand chain tensioner **5**.



- Fit the washer **4** and the axle nut **3**, but do not tighten yet.

– without centre stand OE
- Remove the auxiliary stand.◁

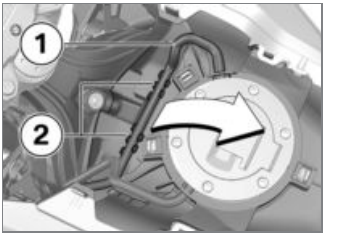


- Insert the pulse generator into the bore hole and fit the screw **1**.
- Adjusting chain sag (➠ 232).

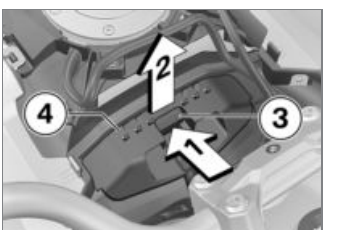
Air filter

Removing air filter

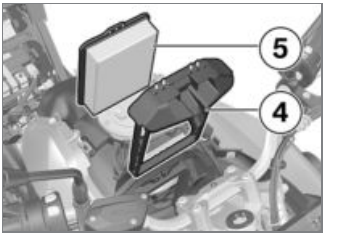
- Removing the tank cover (➠ 224).



- Unclip the hose **1** from the retaining lugs **2**.

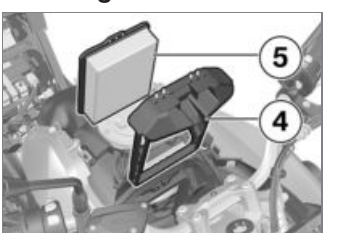


- Press and hold down button **3** to unlock (**arrow 1**).
- Remove the frame **4** from the bracket (**arrow 2**).

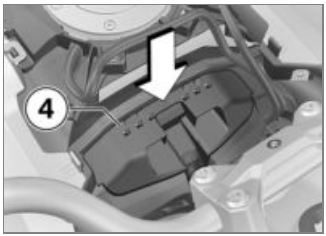


- Remove the frame **4**.
- Remove the air filter insert **5**.

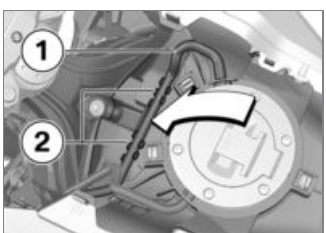
Installing the air filter



- Install air filter insert **5** in frame **4**.



- Install the frame **4**.



- Clip the hose **1** into the retaining lugs **2**.

Lighting

Replacing the LED for low-beam headlight and high beam

- LED low-beam headlight and LED high beam can only be replaced as a complete unit. Consult a specialist workshop, preferably an authorised BMW Motorrad dealer.

Replacing the LED for side light

- The LED side light can be replaced only as a complete unit. Consult a specialist workshop, preferably an authorised BMW Motorrad dealer.

Replacing LED for brake light and rear light

- The LED rear light can be replaced only as a complete unit. Consult a specialist workshop, preferably an authorised BMW Motorrad Retailer.

Replacing bulbs for front and rear turn indicators

– with LED flashing turn indicator[OE]

- LED flashing turn indicators can only be replaced as a complete unit. Consult a specialist workshop, preferably an authorised BMW Motorrad Retailer.◁

– without LED flashing turn indicator[OE]

- Place the motorcycle on its stand on firm, even ground.
- Switch off the ignition.



- Remove the bolt **1**.



- Pull the glass out of the reflector housing at the threaded-fastener side.



- Remove bulb **2** from the light housing by turning anti-clockwise.
- Replace the defective bulb.

Bulbs for flashing turn indicators, front
RY10W / 12 V / 10 W
– with LED flashing turn indicator[OE]
LED◁

- Use a clean, dry cloth to hold the new bulb in order to keep the glass free of foreign matter.



- Turn bulb **2** clockwise to install it in the light housing.



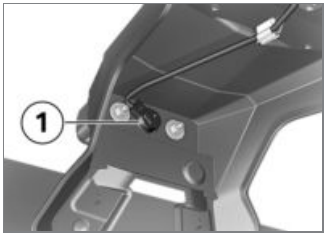
- Working from the inboard side, insert the glass into the light housing and close the housing.



- Fit screw **1**.◁

Replacing the licence plate bulb

- Place the motorcycle on its stand on firm, even ground.
- Switch off the ignition.



- Withdraw bulb socket **1** from the bulb support.



- Pull the bulb out of the bulb socket.

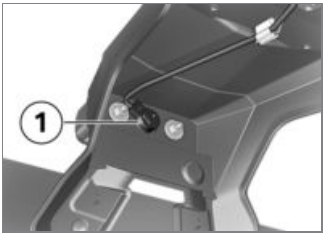
- Replace the defective bulb.

Light source for the number plate light
W5W / 12 V / 5 W

- Use a clean, dry cloth to hold the new bulb in order to keep the glass free of foreign matter.



- Insert the bulb into the socket.



- Insert bulb socket **1** into the bulb support.

Replacing the additional headlight

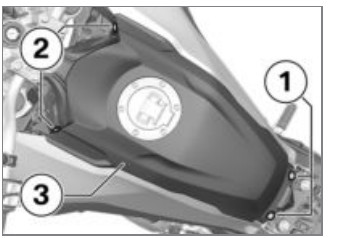
– with LED additional headlight OA

- An additional headlight can only be replaced as a complete unit. Consult a specialist workshop, preferably an authorised BMW Motorrad Retailer.

Body panels

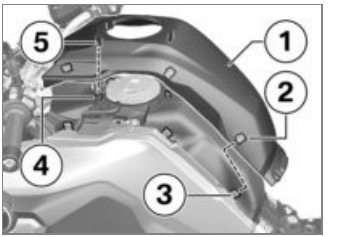
Removing the tank cover

- Removing seat (➠ 127).

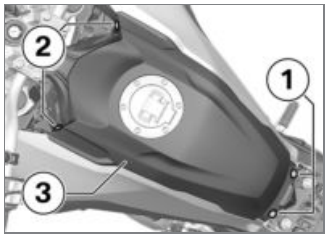


- Remove screws **1** on left and right.
- Remove screws **2**.
- Remove the tank cover **3**.

Install the tank cover



- Make sure that the six brackets **2** engage in the retaining lugs **3** and the four connectors **5** engage in the mounting clips **4**.
- Install the tank cover **1**.



- Install screws **2**.
- Install screws **1**.
- Installing seat (➠ 128).

Jump-starting

ATTENTION

Excessive current flowing when the motorcycle is jump-started

Wiring smoulders/ignites or damage to the on-board electronics

- If the motorcycle has to be jump-started connect the leads to the battery terminals; never attempt to jump-start the engine by connecting leads to the on-board socket.◀

ATTENTION

Contact between crocodile clips of jump leads and vehicle

Risk of short-circuit

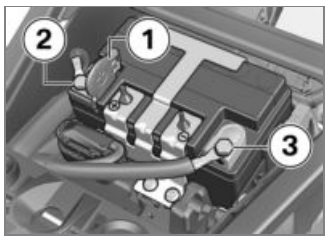
- Use jump leads fitted with fully insulated crocodile clips at both ends.◀

ATTENTION

Jump-starting with a voltage greater than 12 V

Damage to the on-board electronics

- Make sure that the battery of the donor vehicle has a voltage rating of 12 V.◀
- Removing seat (➠ 127).
- When jump-starting the engine, do not disconnect the battery from the on-board electrical system.



- Press in the lock and flip open the positive terminal cover **1**.
- Begin by connecting one end of the red jump lead to the positive terminal of the discharged battery and the other end to the positive terminal of the donor battery (positive terminal on this vehicle: position **2**).
- Then connect one end of the black jump lead to the negative terminal of the donor battery and the other end to the neg-

ative terminal of the discharged battery (negative terminal on this vehicle: position **3**).

NOTICE

The spring-strut screw can be used as an alternative to the battery's negative terminal.◀

- Run the engine of the donor vehicle during jump-starting.
- Start the engine of the vehicle with the discharged battery in the usual way; if the engine does not start, wait a few minutes before repeating the attempt in order to protect the starter motor and the donor battery.
- Allow both engines to idle for a few minutes before disconnecting the jump leads.
- Disconnect the jump lead from the negative terminals first, then disconnect the second lead from the positive terminals.

NOTICE

Do not use proprietary start-assist sprays or other products to start the engine.◀

• Installing seat (➠ 128).

Battery

Maintenance instructions

Correct upkeep, recharging and storage will prolong the life of the battery and are essential if warranty claims are to be considered.

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

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

ATTENTION

On-board electronics (e.g. clock) draining connected battery

Battery is deep-discharged; this voids the guarantee

- Connect a float charger to the battery if the motorcycle is to remain out of use for more than four weeks.◀

NOTICE

BMW Motorrad has developed a float charger specially designed for compatibility with the electronics of your motorcycle. Using this charger, you can keep the battery charged during long periods of disuse, without having

to disconnect the battery from the motorcycle's on-board systems. You can obtain additional information from your authorised BMW Motorrad dealer.◀

Charging battery when connected

- Disconnect devices plugged into the sockets.

ATTENTION

Charging the battery that is connected to the vehicle via the battery terminals

Damage to the on-board electronics

- Disconnect the battery at the battery terminals before charging.◀

ATTENTION

Unsuitable chargers connected to a socket

Damage to charger and vehicle electronics

- Use suitable BMW chargers. The suitable charger is available from your authorised BMW Motorrad dealer.◀

ATTENTION

Recharging a fully discharged battery via the power socket or extra socket

Damage to the vehicle electronics

- If a battery has discharged to the extent that it is completely flat (battery voltage less than 12 V, indicator lights and multifunction display remain off when the ignition is switched on) always charge the **disconnected** battery with the charger connected directly to the battery terminals.◀
- Charge via the charging socket, with the battery connected to the motorcycle's on-board electrical system.

NOTICE

The motorcycle's on-board electronics know when the battery is fully charged. The on-board socket is switched off when this happens.◀

- Comply with the operating instructions of the charger.

NOTICE

If you are unable to charge the battery through the on-board socket, you may be using a charger that is not compatible with your motorcycle's electronics. If this happens, charge the battery directly at the terminals of the battery that is disconnected from the vehicle.◀

Charging a disconnected battery

- Charge the battery using a suitable charger.
- Comply with the operating instructions of the charger.
- After charging, disconnect the charger's terminal clips from the battery terminals.

NOTICE

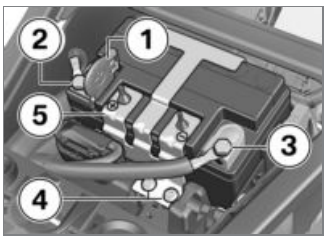
The battery has to be recharged at regular intervals in the course of a lengthy period of disuse. See the instructions for caring for your battery. Always fully recharge the battery before restoring it to use.◀

Removing battery

- Removing seat (➠ 127).
- Place the motorcycle on its stand on firm, even ground.

– with anti-theft alarm (DWA) OE

- If applicable, switch off the anti-theft alarm.◁
- Switch off the ignition.



ATTENTION

Battery not disconnected in accordance with correct procedure

Risk of short-circuit

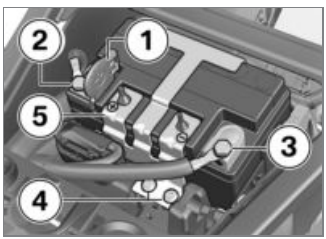
- Always proceed in compliance with the specified disconnection sequence.◀
- Press in the lock and flap up the positive terminal cover **1**.
- First disconnect the battery negative lead **3**.
- Then disconnect the battery positive lead **2**.
- Remove the screws **4** on the left and right and work the battery **5** holder forward until clear of the battery.
- Lift the battery up and out; work it slightly back and forth if it is difficult to remove.

Installing battery

NOTICE

If the vehicle has been disconnected from the battery for a significant time, the current date will have to be entered in the instrument cluster to guarantee correct operation of the service display.◀

- Switch off the ignition.
- Insert the battery into the battery compartment, with the positive terminal on the right in the direction of travel.



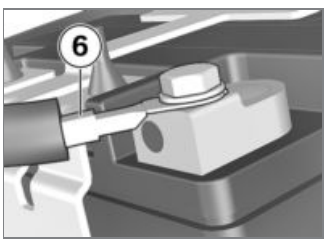
- Position the battery holder **5**.
- Install screws **4** on left and right.
- Press in lock and open the positive terminal cover **1**.

ATTENTION

Battery not connected in accordance with correct procedure

Risk of short-circuit

- Always proceed in compliance with specified installation sequence.◀
- Install the positive battery cable **2**.
- Close positive terminal cover **1**.



- Fit the negative battery cable **3** in alignment **6**, paying attention to ensuring an adequate distance between negative battery cable and seat locking levers.

– with anti-theft alarm (DWA) OE

- If applicable, switch on the anti-theft alarm.◁
- Installing seat (➠ 128).
- Setting the clock (➠ 105).

Fuses

Replacing main fuse

ATTENTION

Jumpering of blown fuses

Risk of short-circuit and fire

- Never attempt to jumper a blown fuse.
- Always replace a defective fuse with a new fuse of the same amperage.◀
- Switch off the ignition.
- Place the motorcycle on its stand on firm, even ground.
- Removing seat (➠ 127).



- Replace faulty fuse **1**.

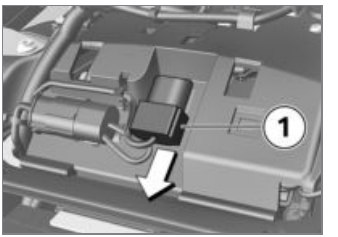
NOTICE

If fuse defects recur frequently have the electric circuits checked by a specialist workshop, preferably an authorised BMW Motorrad dealer.◀

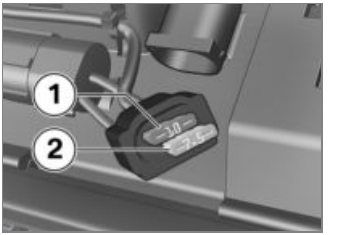
	Main fuse
40 A (Voltage regulator)	

- Installing seat (➠ 128).

Replace fuses



- Switch off the ignition.
- Removing seat (➠ 127).
- Disconnect connector **1**.



ATTENTION

Jumpering of blown fuses

Risk of short-circuit and fire

- Never attempt to jumper a blown fuse.
- Always replace a defective fuse with a new fuse of the same amperage.◀
- Replace defective fuse **1** or **2** depending on assignment.

NOTICE

If fuse defects recur frequently have the electric circuits checked by a specialist workshop,

preferably an authorised BMW Motorrad dealer.◀

Fuse box
10 A (Slot 1: instrument cluster, alarm system (DWA), ignition lock, diagnostic socket, coil main relay)
7.5 A (Slot 2: multifunction switch left, tyre pressure control (RDC))

- Installing seat (➠ 128).

Diagnostic connector

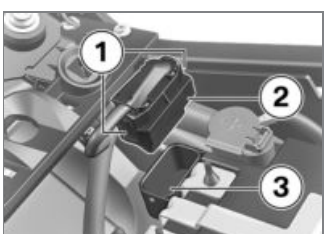
Disengaging diagnostic connector

CAUTION

Incorrect procedure followed when loosening the diagnostic connector for the on-board diagnosis

Motorcycle experiences malfunctions

- Only have the diagnostic connector loosened by a specialist workshop or other authorised persons during your next BMW Service appointment.
- Have the work performed by appropriately trained staff.
- Refer to the vehicle manufacturer specifications.◀
- Removing seat (➠ 127).

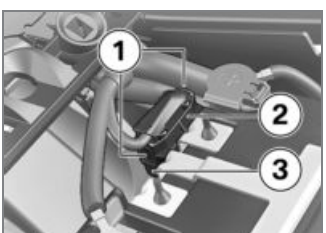


- Press the locks **1** on either side.
- Remove diagnostic connector **2** from bracket **3**.

» The interface to the diagnosis and information system can be connected to the diagnostic connector **2**.

Securing the diagnostic connector

- Disconnect the interface for the diagnosis and information system.



- Insert diagnostic connector **2** in bracket **3**.

» The locks **1** engage.

- Installing seat (➠ 128).

Chain

Lubricating chain

ATTENTION

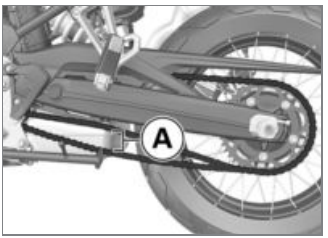
Inadequate cleaning and lubrication of the drive chain

Accelerated wear

- Clean and lubricate the drive chain at regular intervals.◀
- Lubricate the drive chain every 800 km at the latest. Lubricate the chain more frequently if the motorcycle is ridden in wet, dusty or dirty conditions.
- Switch the ignition off and select neutral.
- Clean the drive chain with a suitable cleaning product, dry it and apply chain lubricant.
- Wipe off excess lubricant.

Checking chain sag

- Place the motorcycle on its stand on firm, even ground.
- Turn the rear wheel until it reaches the position with the lowest amount of chain sag.



- Use a screwdriver to push the chain up and down and measure difference **A**.

Chain deflection
40...50 mm (Motorcycle with no weight applied, supported on its side stand)
– with low-slung OE

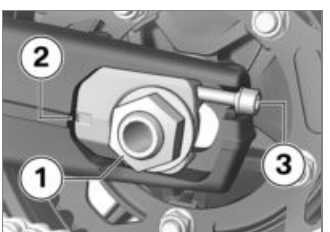
Chain deflection
35...45 mm (Motorcycle with no weight applied, supported on its side stand)◁

If measured value is outside permitted tolerance:

- Adjusting chain sag (➠ 232).

Adjusting chain sag

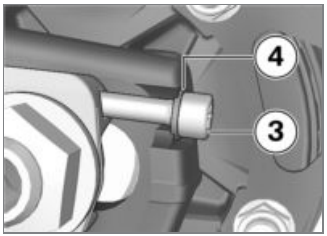
- Place the motorcycle on its stand on firm, even ground.



- Loosen the axle nut **1**.

- Use the adjusting screws **3** on left and right to adjust chain sag.
- Checking chain sag (➠ 232).
- Make sure that the scale readings **2** are the same on left and right.
- Tighten quick-release axle nut **1** to the specified tightening torque.

Rear quick-release axle in swinging arm
Thread-locking compound: mechanical
100 Nm

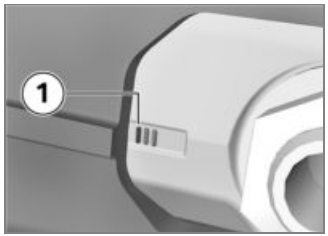


- Check that the washer **4** is lying flat against the screw head **3**, correct as necessary.

Checking the chain wear

Requirement

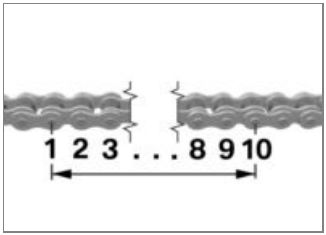
Chain tension is set correctly.



- Place the motorcycle on its stand on firm, even ground.
- Check whether the third marker line **1** can be fully seen.

Check chain length if the third marker line **1** can be fully seen:

- Engage 1st gear.
- Turn the rear wheel in the normal direction of travel until the chain is tensioned.
- Measure chain length over nine rivets underneath the rear wheel swinging arm.



Permissible chain length
max 144 mm (measured **centre to centre** over 10 rivets, chain pulled taut)

If the chain has stretched to the maximum permissible length:

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

Accessories

General instructions 236
Power sockets 236
Cases 237
Topcase 240
Navigation system 244

General instructions

⚠ CAUTION

Use of other-make products
Safety risk
- BMW Motorrad cannot examine or test each product of outside origin to ensure that it can be used on or in connection with BMW vehicles without constituting a safety hazard. Country-specific official authorisation does not suffice as assurance. Tests conducted by these instances cannot make provision for all operating conditions experienced by BMW vehicles and, consequently, they are not sufficient in some circumstances.
- Use only parts and accessories approved by BMW for your vehicle.◀

The components and accessory products have been thoroughly checked by BMW for safety, function and suitability. BMW therefore takes responsibility for the products. BMW does not accept liability for unauthorised parts and accessory products of any kind.
Legal provisions must be taken into account when any changes are made. Please refer to the road traffic licensing regulations (in Germany StVZO) for your country.
Your BMW Motorrad Retailer offers you qualified advice when choosing original BMW components, accessories and other products.
To find out more about accessories, go to:
bmw-motorrad.com/zubehoer

Power sockets

Notes on use of power sockets:

Automatic switch-off
Power sockets are shut down automatically under the following circumstances:
– If the battery charge state is too low to maintain the motorcycle's starting capability.
– When the maximum load capability as stated in the technical data is exceeded.
– During the starting operation.

Operating electrical accessories
You can start using electrical accessories connected to the motorcycle's sockets only when the ignition is switched on. The accessory remains operational if the ignition is subsequently switched off. Approximately 15 minutes after ignition is turned off, power sockets are switched

off to lessen the burden on the vehicle electrical system. Low-wattage electrical accessories might not be recognised by the vehicle's electronics. In such cases, power sockets are switched off very shortly after the ignition is turned off.

Cable routing

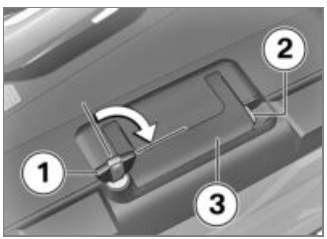
Note the following with regard to the routing of cables from sockets to items of electrical equipment:

– Make sure that cables do not impede the rider.
– Make sure that cables do not restrict the steering angle or obstruct handling.
– Make sure that cables cannot be trapped.

Cases

Open cases

– with case OA



- Turn key **1** clockwise.
- Press and hold down yellow latch **2** and pull out carry handle **3**.



- Push yellow button **1** down, simultaneously opening the case lid.

Adjusting the case volume

– with case OA

- Open case and empty.



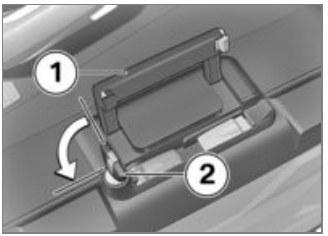
- Engage lever **1** in the upper end position to obtain the smaller volume.
- Engage lever **1** in the lower end position to obtain the larger volume.
- Closing cases.

Closing cases

– with case OA

- Turn the lock with the key until it is at right angles to the forward direction of travel.
- Close the case lid.

» The lid engages with an audible click.



ATTENTION

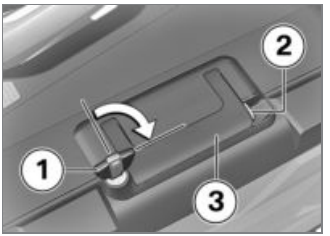
Closure of carrying handle with case lock latched

Damage to locking tab

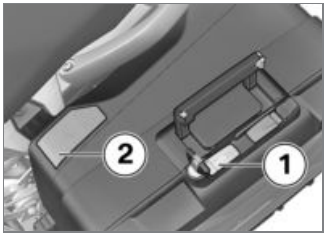
- Make sure that the case lock is at right angles to the forward direction of travel when you close the carry handle.◀
- Fold down carry handle **1**.
- Turn key **2** anti-clockwise and withdraw.

Removing cases

– with case OA



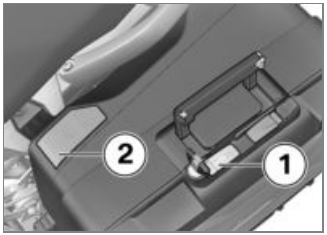
- Turn key **1** clockwise.
- Press and hold down yellow latch **2** and pull out carry handle **3**.



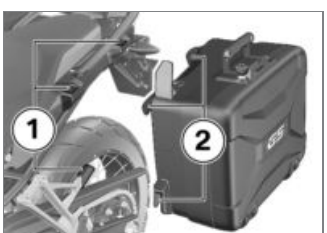
- Pull red release lever **1** up.
» Latching flap **2** pops up.
- Fully open the latching flap.
- Lift the case out of the holder by its carry handle.

Install cases

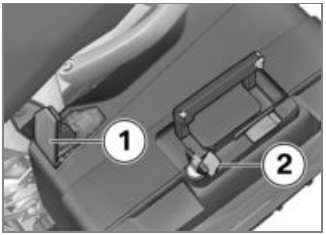
– with case[OA]



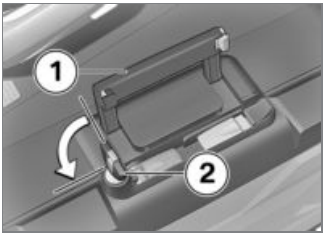
- Pull red release lever **1** up.
» Latching flap **2** pops up.
- Fully open the latching flap.



- Insert case into brackets **1** and **2** from above.



- Push locking flap **1** down until you feel some resistance.
- Then push locking flap and red release lever **2** down simultaneously.
» The latching flap engages.



ATTENTION

Closure of carrying handle with case lock latched

Damage to locking tab

- Make sure that the case lock is at right angles to the forward direction of travel when you close the carry handle.◀
- Fold down carry handle **1**.
- Turn key **2** anti-clockwise and withdraw.

Maximum payload and maximum permissible speed

Note the maximum permissible payload and the speed limit for riding with cases fitted, as stated on the label inside the case. Contact your authorised BMW Motorrad Retailer if you cannot find your combination of vehicle and cases on the label. The values for the combination described here are as follows:

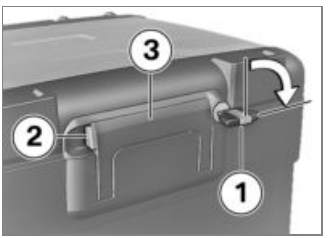
Maximum permissible speed for riding with cases fitted to the motorcycle
max 160 km/h

Payload per case
max 8 kg

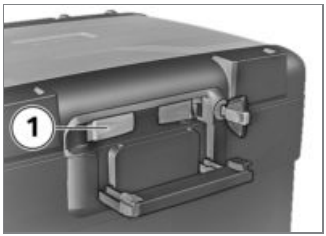
Topcase

Opening topcase

– with topcase[OA]



- Turn key **1** clockwise.
- Press and hold down yellow latch **2** and pull out carry handle **3**.



- Push yellow button **1** forwards, simultaneously opening the topcase lid.

Adjusting the topcase volume

– with topcase OA

- Open topcase and empty.

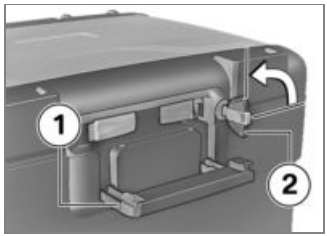


- Engage lever **1** in the forwards end position to obtain the larger volume.
- Engage lever **1** in the rearwards end position to obtain the smaller volume.
- Close the topcase.

Closing topcase

– with topcase OA

- Press down firmly on topcase lid to close.



ATTENTION

Closure of carrying handle with case lock latched

Damage to locking tab

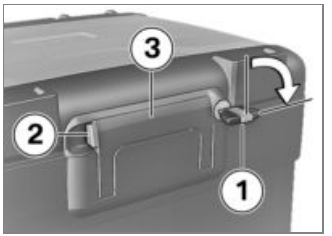
- Make sure that the topcase lock is vertical when you close the carry handle.◀
- Fold down carry handle **1**.

» The handle engages with an audible click.

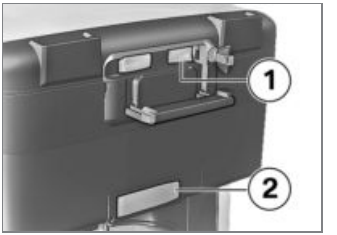
- Turn key **2** anti-clockwise and withdraw.

Removing the topcase

– with topcase[OA]



- Turn key **1** clockwise.
- Press and hold down yellow latch **2** and pull out carry handle **3**.



- Pull red lever **1** to the rear.
» Latching flap **2** pops up.
- Fully open the latching flap.
- Take a firm grip of the handle and lift the topcase out of the holder.

Installing topcase

– with topcase[OA]



- Pull red lever **1** to the rear.
» Latching flap **2** pops up.
- Fully open the latching flap.



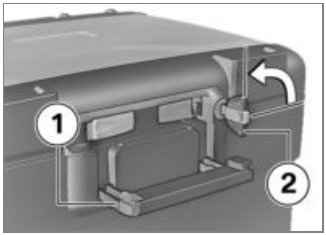
- Engage the topcase in front holders **1** of the topcase carrier plate.

- Push the rear of the topcase onto the topcase carrier plate.



- Push locking flap **1** forwards until you feel some resistance.
- Then push locking flap and red release lever **2** forwards simultaneously.

» The latching flap engages.



ATTENTION

Closure of carrying handle with case lock latched

Damage to locking tab

- Make sure that the topcase lock is vertical when you close the carry handle.◀
- Fold down carry handle **1**.

» The handle engages with an audible click.

- Turn key **2** anti-clockwise and withdraw.

Maximum payload and maximum permissible speed

Note the maximum permissible payload and the speed limit for riding with topcase fitted, as stated on the label inside the topcase.

Contact your authorised BMW Motorrad Retailer if you cannot find your combination of vehicle and topcase on the label.

The values for the combination described here are as follows:

Maximum speed for riding with a loaded topcase
max 160 km/h

Payload of topcase
max 5 kg

Navigation system

– with preparation for navigation system OE

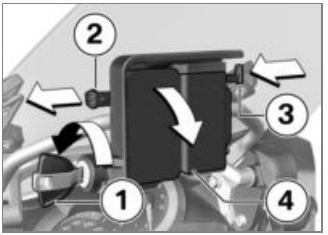
Securing navigation device

NOTICE

Navigation preparation is suitable from BMW Motorrad Navigator IV.◀

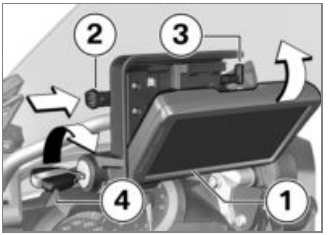
NOTICE

The latching system of the Mount Cradle is not designed to protect against theft.
Always remove the navigation system and stow it away safely as soon as you finish your ride.◀



- Turn ignition key **1** anti-clockwise.
- Pull the lock retainer **2** to the **left**.
- Press the lock **3** in.

» Mount Cradle is unlocked and cover **4** can be removed to the front in a swivelling motion.



- Insert the navigation device **1** at the bottom and swing it towards the rear in one rotational movement.

» The navigation device is heard to engage.

- Push the lock retainer **2** all the way to the **right**.

» Lock **3** is locked.

- Turn ignition key **4** clockwise.

» The navigation device is secured and the ignition key can be removed.

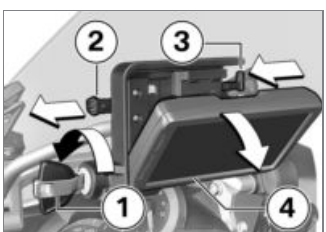
Removing navigation device and installing cover

ATTENTION

Dust and dirt on the Mount Cradle contacts

Damaged contacts

- Always reinstall the cover as soon as you finish your ride.◀



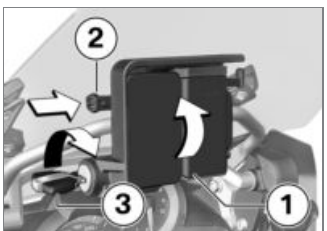
- Turn ignition key **1** anti-clockwise.
- Pull the lock retainer **2** all the way to the **left**.

» Lock **3** is unlocked.

- Push lock **3** all the way to the **left**.

» The navigation device **4** is unlocked.

- Tilt the navigation device **4** downwards and remove.



- Insert cover **1** in the lower section and swing to the top with a rotational movement.

» The cover engages with an audible click.

- Push lock retainer **2** to the **right**.
- Turn ignition key **3** clockwise.

» The cover **1** is secured.

Operating navigation system

NOTICE

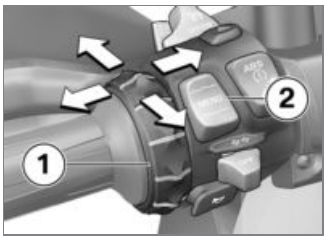
The description below is based on the BMW Motorrad Navigator V and the BMW Motorrad Navigator VI. The BMW Motorrad Navigator IV does not support all the options described here.◀

NOTICE

Only the latest version of the BMW Motorrad communication system is supported. A software update of the BMW Motorrad communication system may be necessary. If this is the case, consult your authorised BMW Motorrad dealer.◀

Some BMW Motorrad Navigator functions can be operated directly from the handlebars if it is installed and the operating fo-

cus is switched to the Navigator (➠ 135).



The navigation system is operated via the Multi-Controller **1** and the MENU rocker button **2**.

Turn the Multi-Controller 1 up and down

On the compass and Mediaplayer page: increase or decrease the volume of a BMW Motorrad communication system connected via Bluetooth. In the BMW special menu: select menu items.

Briefly tilt the Multi-Controller 1 to the left and right

Switch between the Navigator's main pages:
– Map view
– Compass
– Mediaplayer
– BMW special menu
– My Motorcycle page

Hold the Multi-Controller 1 to the left and right

Activate certain functions on the Navigator display. An arrow to the right or to the left above the corresponding button area on the display indicates a function that can be activated in this way.

Long-push to the right to activate this function.

Long-push to the left to activate this function.

Press down MENU rocker button 2

Switch the operating focus to Pure Ride view.

In detail, the following functions can be controlled:

Map view
– Turn up: Zoom in.
– Turn down: Zoom out.

Compass page
– Turning increases or decreases the volume of a BMW Motorrad communication system connected via Bluetooth.

BMW special menu
– Speak: Repeat most recent navigation announcement.

– Waypoint: Save current location as a favourite.
– Home: Starts navigation to home address (greyed if no home address has been defined).
– Mute: Switch automatic navigation announcements off or on (off: a crossed-out lips symbol appears in the top line of the display). "Speak" will still activate navigation announcements. All other acoustic outputs remain switched on.
– Switch off display: Deactivate the display.
– Dial home number: Dials the home phone number saved in the Navigator (not shown unless a telephone is connected).
– Diversion: Activates the diversion function (not shown unless a route is active).
– Skip: Skips the next waypoint (not shown unless the route has waypoints).

My Motorcycle

– Turn: Changes the number of data shown.
– Touch a data field on the display to open the menu for selecting data.
– The values available fr selection depend on the optional extras installed on the vehicle.

NOTICE

The Mediaplayer function is only available when a Bluetooth device complying with the A2DP standard is used, for example a BMW Motorrad communication system.◀

Mediaplayer

– Push to the left and hold: Play preceding track.
– Push to the right and hold: Play next track.
– Turning increases or decreases the volume of a BMW Motorrad communication system connected via Bluetooth.

Indicator and warning messages



Indicator and warning messages from the motorcycle are indicated by an appropriate symbol **1** which appears at the top left in the map view.

NOTICE

If a BMW Motorrad communication system is connected,

warnings are accompanied by an acoustic signal.◀

If there are two or more active warnings the number appears below the warning triangle.
Touching the warning triangle when more than one warning is active opens a list of all the warnings.
Additional information appears as soon as a message is selected.

NOTICE

Detailed information cannot be displayed for all warnings.◀

Special functions

Integration of the BMW Motorrad Navigator has produced a number of deviations from the descriptions in the operating instructions for the Navigator.

Fuel reserve warning

The settings for the fuel gauge are not available, because the reserve fuel level warning is sent by the vehicle to the Navigator. When this message is displayed, pressing the message will cause the next filling station to be displayed.

Time and date

The Navigator sends the time and date to the motorcycle.
To allow transfer of the time to the TFT display, the `GPS synchronisation` function must also be activated in the `Settings`, `System settings`, `Date and time` menu.

Security settings

The BMW Motorrad Navigator V and the BMW Motorrad Navigator VI can be secured against unauthorised use with a four-digit PIN (Garmin Lock). If this function is activated while the Navigator is installed in the vehicle and the ignition is switched on, you will be asked whether you want to add this vehicle to the list of secured vehicles. If you answer "Yes" at this prompt the Navigator stores the VIN of this vehicle.
A maximum of five VINs can be saved in this way.
Subsequently, the PIN does not have to be entered when the Navigator is switched on by ignition ON while cradled in any of these vehicles.
If the Navigator is removed from the vehicle while switched on, a security prompt asking for the PIN to be entered is issued.

Screen brightness

In the installed condition, the screen brightness is specified by the motorcycle. No manual input is necessary.

If you prefer, you can switch off automatic adjustment n the Navigator display settings.

Care

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Washing the vehicle 252
Cleaning easily damaged components 253
Care of paintwork 254
Vehicle preservation 254
Laying up the motorcycle 254
Restoring motorcycle to use 255

Care products

BMW Motorrad recommends that you use the cleaning and care products you can obtain from your authorised BMW Motorrad Retailer.
The substances in BMW CareProducts have been tested in laboratories and in practice; they provide optimised care and protection for the materials used in your vehicle.

ATTENTION

Use of unsuitable cleaning and care products
Damage to vehicle parts
- Do not use solvents such as cellulose thinners, cold cleaners, fuel or the like, and do not use cleaning products that contain alcohol.◀

Washing the vehicle

BMW Motorrad recommends that you use BMW insect remover to soften and wash off insects and stubborn dirt on painted parts prior to washing the motorcycle.
To prevent stains, do not wash the vehicle immediately after it has been exposed to strong sunlight and do not wash it in the sun.
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.

WARNING

Wet brake discs and brake pads after vehicle wash, after riding through water and in rainy conditions
Diminished braking effect, risk of accident
- Apply the brakes in good time to allow the friction and heat to dry the brake discs and brake pads.◀

ATTENTION

Effect of road salt intensified by warm water
Corrosion
- Use only cold water to wash off road salt.◀

ATTENTION

Damage due to high water pressure from high pressure cleaners or steam cleaners
Corrosion or short circuit, damage to labels, seals, hydraulic brake system, electrical system and the motorcycle seat

- Exercise restraint when using a steam jet or high pressure cleaning equipment.◀

NOTICE

The case and topcase do not have any surface coating. The following care steps will ensure the best-possible appearance: Remove road salt and corrosive deposits immediately at the end of the journey with cold water.◀

Cleaning easily damaged components

Plastics

ATTENTION

Use of unsuitable cleaning agents

Damage to plastic surfaces

- Do not use cleaning agents that contain alcohol, solvents or abrasives.
- Do not use insect-remover pads or cleaning pads with hard, scouring surfaces.◀

Body panels

Clean trim panel components with water and BMW Motorrad solvent cleaner.

Plastic windscreens and headlight lenses

Remove dirt and insects with a soft sponge and generous amounts of water.

NOTICE

Soften stubborn dirt and insects by covering the affected areas with a wet cloth.◀

Chrome

Carefully clean chrome sections with a generous amount of water and motorcycle cleaner from the care series BMW Motorrad Care Products. This applies especially where road salt has been in use. For an additional treatment, use BMW Motorrad metal polish.

Radiator

Clean the radiator regularly to prevent overheating of the engine due to inadequate cooling. For example, use a garden hose with low water pressure.

ATTENTION

Bending of radiator fins

Damage to radiator fins

- Take care not to bend the radiator fins when cleaning.◀

Rubber

Treat rubber components with water or BMW rubber-care products.

ATTENTION

Application of silicone sprays to rubber seals

Damage to the rubber seals

- Do not use silicone sprays or care products that contain silicon.◀

Care of paintwork

The long-term effects of materials that are damaging to paint can be prevented by regular vehicle washes, particularly if your vehicle is ridden in areas susceptible to high levels of air pollution or natural contamination, for example tree resin or pollen. Particularly aggressive materials, however, should be removed immediately, otherwise changes to or discolouration of the paint can result. These include, for example, spilled fuel, oil, grease, brake fluid or bird excrement.

For this, we recommend BMW Motorrad solvent cleaner followed by BMW Motorrad gloss polish for preservation.

Contamination of the paint surface can be seen particularly clearly after a vehicle wash. These areas should be cleaned immediately using benzine or spirit, applied with a clean cloth or cotton pad. BMW Motorrad recommends that tar spots be removed using BMW tar remover. The paint should then be preserved in these areas.

Vehicle preservation

If water no longer rolls off the paint, the paint must be preserved.

For paint preservation, BMW Motorrad recommends the use of BMW Motorrad gloss polish or agents containing carnauba wax or synthetic wax.

Laying up the motorcycle

- Cleaning the motorcycle.
- Fill the motorcycle's fuel tank.
- Removing battery (➠ 228).
- Spray the brake and clutch lever pivots and the main and side stand pivots with a suitable lubricant.
- Preserve bright metal and chrome-plated parts with an acid-free grease (e.g. Vaseline).
- Stand the motorcycle in a dry room in such a way that there is no load on either wheel (preferably using the front-wheel and rear-wheel stand from BMW Motorrad).

Restoring motorcycle to use

- Remove the protective wax coating.
- Cleaning the motorcycle.

- Installing battery (➠ 228).
- Comply with checklist (➠ 167).

Technical data

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Troubleshooting chart

The engine does not start:

Possible cause	Rectification
Side stand extended and gear engaged	Engage neutral or fold in the side stand.
Gear engaged and clutch not disengaged	Select neutral or pull the clutch lever.
No fuel in tank	Refuel.
Battery flat	Charge battery when connected.
Overheating protection for starter motor has been activated. Starter motor can only be operated for a limited period of time.	Allow the starter motor to cool down for approx. 1 minute before using it again.

The Bluetooth connection is not established.

Possible cause	Rectification
The steps required for pairing were not carried out.	Check the necessary steps for pairing in the operating instructions for the communication system.
The communication system was not connected automatically despite successful pairing.	Switch off the helmet's communication system and reconnect it after a minute or two.
Too many Bluetooth devices are saved on the helmet.	All pairing entries on the helmet are deleted (see the communication system operating instructions).
There are other vehicles with Bluetooth-capable devices in the vicinity.	Avoid simultaneously pairing with more vehicles.

Bluetooth connection is interrupted.

Possible cause	Rectification
The Bluetooth connection to the mobile end device is interrupted.	Switch off energy saving mode.
The Bluetooth connection to the helmet is interrupted.	Switch off the helmet's communication system and reconnect it after a minute or two.
The volume in the helmet cannot be adjusted.	Switch off the helmet's communication system and reconnect it after a minute or two.

The telephone book is not displayed in the TFT display.

Possible cause	Rectification
The phone book was not transmitted to the vehicle.	Confirm transmission of the phone data (➠ 149) when pairing the mobile device.

Active route guidance is not displayed in the TFT display.

Possible cause	Rectification
Navigation from the BMW Motorrad Connected App was not transmitted.	The BMW Motorrad Connected App is opened on the connected mobile end device prior to departure.
The route guidance cannot be started.	Secure the mobile device's data connection and check the map data on the mobile end device.

Screw connections

Front wheel	Value	Valid
Brake caliper to telescopic fork		
M10 x 45	38 Nm	
Clamp of quick-release axle		
M8 x 35	**Tightening sequence: Tighten screws six times in alternate sequence**	
	19 Nm	
Axle screw in quick-release axle, front		
M20 x 1.5	50 Nm	

Rear wheel	Value	Valid
Rear quick-release axle in swinging arm		
M24 x 1.5 mechanical	100 Nm	

Mirror arm	Value	Valid
Mirror (lock nut) to clamping piece		
M10 x 1.25	Left-hand thread, 22 Nm	
Adapter to clamping block		
M10 x 14 - 4.8	25 Nm	

Fuel

Recommended fuel grade	E5 Super unleaded (maximum 15% ethanol, E15) E10 95 ROZ/RON 90 AKI
Fuel tank capacity	approx. 15 l
Reserve fuel	approx. 3.5 l

Engine oil

Engine oil, capacity	approx. 3.0 l, with filter change
Specification	SAE 5W-40, API SJ / JASO MA2, Additives (e.g. molybdenum-based) are not permissible because they can attack coated components of the engine, BMW Motorrad recommends BMW Motorrad ADVANTEC Ultimate oil.
Oil additives	BMW Motorrad recommends not using oil additives, because they can have a detrimental effect on clutch operation. Do ask your authorised BMW Motorrad Retailer for the engine oils suitable for your motorcycle.

BMW recommends ADVANTEC ORIGINAL BMW ENGINE OIL

Engine

Location of engine number	Top right of crankcase
Engine type	A24A08M0
Engine design	Water-cooled 2-cylinder four-stroke engine with four valves per cylinder operated via rocker arms, two overhead camshafts and dry-sump lubrication
Displacement	853 cm^3
Cylinder bore	84 mm
Piston stroke	77 mm
Compression ratio	12.7:1
Nominal output	70 kW, at engine speed: 8250 min^{-1}
– with power reduction to 35 kW^{OE}	35 kW, at engine speed: 6500 min^{-1}
Torque	92 Nm, at engine speed: 6250 min^{-1}
– with power reduction to 35 kW^{OE}	63 Nm, at engine speed: 4500 min^{-1}
Maximum engine speed	max 9000 min^{-1}
Idle speed	1250 min^{-1}, Engine at regular operating temperature
Exhaust emissions standard	Euro 4

Clutch

Clutch type	Multiplate oil-bath clutch (anti-hopping)

Transmission

Gearbox type	Claw-shifted 6-speed manual gearbox integrated in the engine housing
Gearbox transmission ratios	1.821, Primary transmission ratio 1:2.833, 1st gear 1:2.067, 2nd gear 1:1.600, 3rd gear 1:1.308, 4th gear 1:1.103, 5th gear 1:0.968, 6th gear

Rear-wheel drive

Type of final drive	Chain drive
Type of rear suspension	Double arm aluminium swinging arm
Final drive, number of teeth (Pinion / sprocket)	17/44

Frame

Frame type	Bridge-type steel frame in shell construction
Type plate location	Frame, front left at steering head
Position of the Vehicle Identification Number	Frame, front right by steering head

Chassis and suspension

Front wheel	
Type of front suspension	Upside-down telescopic fork
Spring travel, front	230 mm, at front wheel
– with low-slung[OE]	210 mm, at front wheel

Rear wheel	
Type of rear suspension	Double arm aluminium swinging arm
Type of rear suspension	Central spring strut with coil spring, adjustable rebound stage damping and spring preload
Spring travel at rear wheel	215 mm, at rear wheel
– with low-slung OE	195 mm, at rear wheel

Brakes

Front wheel	
Type of front brake	Hydraulically operated twin disc brake with 2-piston floating calipers and floating brake discs
Brake-pad material, front	Sintered metal
Brake disc thickness, front	4.5 mm, When new min 4.0 mm, Wear limit
Play of brake controls (Front brake)	0.7...1.7 mm, measured on the piston

Rear wheel	
Type of rear brake	Hydraulically operated disc brake with 1-piston floating caliper and fixed disc
Brake-pad material, rear	Organic material
Brake disc thickness, rear	5.0 mm, When new min 4.5 mm, Wear limit
Blow-by clearance of the footbrake lever	1.9...2.1 mm, On the limit position for the foot-brake lever on the footrest plate.

Wheels and tyres

Recommended tyre sets	An overview of currently approved tyres is available from your authorised BMW Motorrad Retailer or on the Internet at bmw-motorrad.com.
Speed category, front/rear tyres	V, required at least: 240 km/h

Front wheel	
Front wheel type	Cross-spoked wheel
Front wheel rim size	2.15" x 21" MTH2
Tyre designation, front	90/90-21
Load index, front tyre	54
Permissible front-wheel imbalance	max 5 g
Balance weight for front wheel (One half of the weights must be attached to the left and the other half to the right of the wheel rim)	max 80 g
Rear wheel	
Rear-wheel type	Cross-spoked wheel
Rear wheel rim size	4.25" x 17" MTH2
Tyre designation, rear	150/70 R 17
Load index, rear tyre	69
Permissible rear-wheel imbalance	max 45 g
Balance weight for the rear wheel (One half of the weights must be attached to the left and the other half to the right of the wheel rim)	max 80 g

Tyre pressure	
Tyre pressure, front	2.2 bar, One-up, tyre cold 2.5 bar, Two-up and/or with luggage, tyre cold
Tyre pressure, rear	2.5 bar, One-up, tyre cold 2.9 bar, Two-up and/or with luggage, tyre cold

Electrical system

Main fuse	40 A, Voltage regulator
Fuse box	10 A, Slot 1: instrument cluster, alarm system (DWA), ignition lock, diagnostic socket, coil main relay 7.5 A, Slot 2: multifunction switch left, tyre pressure control (RDC)
Fuses	All circuits are protected electronically. If a circuit has been switched off by the electronic fuse, the circuit is once again active after having switched on the ignition and as soon as the activating fault has been eliminated.
Electrical rating of on-board sockets	5 A

Battery	
Battery type	AGM battery (Absorbent Glass Mat)
Battery rated voltage	12 V
Battery rated capacity	10 Ah
Spark plugs	
Spark plugs, manufacturer and designation	NGK LMAR8J-9E
Light source	
Bulb for high-beam headlight	LED
Bulbs for the low-beam headlight	LED
Bulb for parking light	LED
Bulb for tail light/brake light	LED
Light source for the number plate light	W5W / 12 V / 5 W
Bulbs for flashing turn indicators, front	RY10W / 12 V / 10 W
– with LED flashing turn indicator[OE]	LED
Bulbs for flashing turn indicators, rear	RY10W / 12 V / 10 W
– with LED flashing turn indicator[OE]	LED

Dimensions

Length of motorcycle	2305 mm, through number plate carrier
– with low-slung[OE]	2295 mm, through number plate carrier
Height of motorcycle	1356 mm, Over windscreen, at DIN unladen weight
– with low-slung[OE]	1330 mm, Over windscreen, at DIN unladen weight
Width of motorcycle	922 mm, with mirrors 877 mm, without mounted parts
Front-seat height	860 mm, without rider at DIN unladen weight
– with seat, low[OE]	835 mm, without rider at DIN unladen weight
– with comfort seat[OE]	875 mm, without rider at DIN unladen weight
– with low-slung[OE]	815 mm, without rider at DIN unladen weight
Rider's inside-leg arc, heel to heel	1910 mm, without rider at DIN unladen weight
– with seat, low[OE]	1870 mm, without rider at DIN unladen weight
– with comfort seat[OE]	1950 mm, without rider at DIN unladen weight
– with low-slung[OE]	1830 mm, without rider at DIN unladen weight

Weights

Vehicle kerb weight	229 kg, DIN unladen weight, ready for road, 90 % load of fuel, without optional extras (OE)
Permissible gross weight	445 kg
Maximum payload	216 kg

Riding specifications

Top speed	>200 km/h

Service

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BMW Motorrad Service

BMW Motorrad has an extensive network of dealerships in place to look after you and your motorcycle in more than 100 countries. Authorised BMW Motorrad Retailers have the technical information and the technical know-how to reliably carry out all maintenance and repair work on your BMW.

You can locate your nearest authorised BMW Motorrad Retailer by visiting our website:
bmw-motorrad.com

WARNING

Maintenance and repair work not in compliance with correct procedure

Risk of accident due to consequential damage

- BMW Motorrad recommends having work of this nature carried out on the vehicle by a specialist workshop, preferably an authorised BMW Motorrad dealer.◀

In order to help ensure that your BMW is always in optimum condition, BMW Motorrad recommends compliance with the maintenance intervals specified for your motorcycle. Have all maintenance and repair work that is carried out confirmed in the "Service" chapter in this manual. For generous treatment of claims submitted after the warranty period has expired, evidence of regular maintenance is essential.

Your authorised BMW Motorrad Retailer can provide information on BMW services and the work undertaken as part of each service.

BMW Motorrad Service history

Entries

Maintenance work that has been carried out is entered in the proof of maintenance. The entries are like a Service Booklet and provide proof of regular maintenance.

If an entry is made in the electronic service booklet of the vehicle, service-relevant data is saved in the central IT systems of BMW AG, Munich.

If there is a change in vehicle owner, the data saved in the electronic service booklet can also be viewed by the new vehicle owner. A BMW Motorrad Retailer or a specialist workshop can also view data that is stored in the electronic service booklet.

Objection

The vehicle owner can object to entries being made by the BMW Motorrad Retailer or a specialist workshop in the electronic service booklet along with the corresponding storage of data in the vehicle and transfer of data to the vehicle manufacturer for the period of time that they are the vehicle owner. In this instance, no entry is made in the electronic service booklet of the vehicle.

BMW Motorrad mobility services

If you have a new BMW motorcycle, you are protected by various of the BMW Motorrad mobility services in the event of a breakdown (e.g. BMW breakdown assistance, breakdown recovery, vehicle transport).

Find out from your authorised BMW Motorrad Retailer which mobility services are offered.

Maintenance work

BMW pre-delivery check

Your authorised BMW Motorrad Retailer conducts the BMW pre-delivery check before handing over the vehicle to you.

BMW Running-in Check

The BMW running-in check must be carried out between 500 km and 1200 km.

BMW Service

The BMW Service is carried out once a year. The scope of the service depends on the age of the vehicle and the mileage ridden. Your BMW Motorrad Retailer will confirm the service that has been carried out for you and will enter the deadline for the next service.

For riders with a high mileage it may be necessary to have a service before the specified deadline. In this case, a corresponding maximum mileage is entered in the service confirmation. If this mileage is reached before the next service deadline, the service must be brought forward.

The Service Interval Indicator in the display reminds you about one month or 1000 km in advance when the time for a service is approaching, on the basis of the programmed values.

To find out more about service, go to:
bmw-motorrad.com/service

The scope of maintenance work required for your vehicle can be found in the following maintenance schedule:

	500 -1200 km 300 - 750 mls	**10 000 km** 6 000 mls	**20 000 km** 12 000 mls	**30 000 km** 18 000 mls	**40 000 km** 24 000 mls	**50 000 km** 30 000 mls	**60 000 km** 36 000 mls	**70 000 km** 42 000 mls	**80 000 km** 48 000 mls	**90 000 km** 54 000 mls	**100 000 km** 60 000 mls	**12 months**	**24 months**
①	X												
②												X	
③		X	X	X	X	X	X	X	X	X	X	X[a]	
④			X		X		X		X		X		
⑤			X		X		X		X		X		
⑥			X		X		X		X		X		
⑦		X	X	X	X	X	X	X	X	X	X	X[b]	
⑧				X			X			X			
⑨												X[c]	X[c]

Maintenance schedule

1 BMW Running-in check
2 BMW Standard scope of service
3 Engine-oil change, with filter
4 Checking valve clearance
5 Replace all spark plugs
6 Replace air filter insert
7 Check or replace air-filter insert
8 Oil change in the telescopic forks
9 Change brake fluid in the entire system

a annually or every 10000 km (whichever comes first)
b if used off-road, annually or every 10000 km (whichever comes first)
c for the first time after one year, then every two years

Maintenance confirmations

BMW Service standard scope

The repair tasks in the BMW Service standard scope are listed below. The actual scope of maintenance work applicable for your vehicle may vary.

- Performing vehicle test with BMW Motorrad diagnostic system
- Checking coolant level
- Checking/adjusting clutch play
- Checking front brake pads and brake discs for wear
- Checking the rear brake pads and brake disc for wear
- Check the brake fluid level, front and rear
- Visual inspection of the brake lines, brake hoses and connections
- Checking spoke tension, adjusting if necessary
- Check the tyre pressures and tread depth
- Checking and lubricating the chain drive
- Checking ease of movement of side stand
- Check the centre stand's ease of movement
- Checking steering-head bearing
- Check the lights and signalling equipment
- Function test, engine start suppression
- Final inspection and check of roadworthiness
- Setting the service date and service for remaining distance with BMW Motorrad diagnosis system
- Checking battery charge state
- Confirm BMW service in on-board literature

BMW pre-delivery check

carried out

at_____

_____

Stamp, signature

BMW Running-in Check

carried out

at_____

at km_____

Next service

at the latest

at_____

or, when reached earlier

at km_____

_____

Stamp, signature

BMW Service
carried out

at_____
at km_____

Next service
at the latest
at_____
or, when reached earlier
at km_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Oil change, engine, with filter	☐	☐
Checking valve clearance	☐	☐
Renewing all spark plugs	☐	☐
Renewing air cleaner insert	☐	☐
Checking or replacing air filter element (for maintenance)	☐	☐
Oil change in telescopic front forks	☐	☐
Change brake fluid in entire system	☐	☐

Notes

BMW Service
carried out

at_____
at km_____

Next service
at the latest
at_____
or, when reached earlier
at km_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Oil change, engine, with filter	☐	☐
Checking valve clearance	☐	☐
Renewing all spark plugs	☐	☐
Renewing air cleaner insert	☐	☐
Checking or replacing air filter element (for maintenance)	☐	☐
Oil change in telescopic front forks	☐	☐
Change brake fluid in entire system	☐	☐

Notes

BMW Service
carried out

at_____
at km_____

Next service
at the latest
at_____
or, when reached earlier
at km_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Oil change, engine, with filter	☐	☐
Checking valve clearance	☐	☐
Renewing all spark plugs	☐	☐
Renewing air cleaner insert	☐	☐
Checking or replacing air filter element (for maintenance)	☐	☐
Oil change in telescopic front forks	☐	☐
Change brake fluid in entire system	☐	☐

Notes

BMW Service
carried out

at_____
at km_____

Next service
at the latest
at_____
or, when reached earlier
at km_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Oil change, engine, with filter	☐	☐
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Oil change in telescopic front forks	☐	☐
Change brake fluid in entire system	☐	☐

Notes

BMW Service
carried out

at_____
at km_____

Next service
at the latest
at_____
or, when reached earlier
at km_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Oil change, engine, with filter	☐	☐
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Oil change in telescopic front forks	☐	☐
Change brake fluid in entire system	☐	☐

Notes

BMW Service
carried out

at_____
at km_____

Next service
at the latest
at_____
or, when reached earlier
at km_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Oil change, engine, with filter	☐	☐
Checking valve clearance	☐	☐
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Renewing air cleaner insert	☐	☐
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Oil change in telescopic front forks	☐	☐
Change brake fluid in entire system	☐	☐

Notes

BMW Service
carried out

at_____
at km_____

Next service
at the latest
at_____
or, when reached earlier
at km_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Oil change, engine, with filter	☐	☐
Checking valve clearance	☐	☐
Renewing all spark plugs	☐	☐
Renewing air cleaner insert	☐	☐
Checking or replacing air filter element (for maintenance)	☐	☐
Oil change in telescopic front forks	☐	☐
Change brake fluid in entire system	☐	☐

Notes

BMW Service
carried out

at_____
at km_____

Next service
at the latest
at_____
or, when reached earlier
at km_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Oil change, engine, with filter	☐	☐
Checking valve clearance	☐	☐
Renewing all spark plugs	☐	☐
Renewing air cleaner insert	☐	☐
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Oil change in telescopic front forks	☐	☐
Change brake fluid in entire system	☐	☐

Notes

BMW Service
carried out

at_____
at km_____

Next service
at the latest
at_____
or, when reached earlier
at km_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Oil change, engine, with filter	☐	☐
Checking valve clearance	☐	☐
Renewing all spark plugs	☐	☐
Renewing air cleaner insert	☐	☐
Checking or replacing air filter element (for maintenance)	☐	☐
Oil change in telescopic front forks	☐	☐
Change brake fluid in entire system	☐	☐

Notes

BMW Service
carried out

at_____
at km_____

Next service
at the latest
at_____
or, when reached earlier
at km_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Oil change, engine, with filter	☐	☐
Checking valve clearance	☐	☐
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Renewing air cleaner insert	☐	☐
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Oil change in telescopic front forks	☐	☐
Change brake fluid in entire system	☐	☐

Notes

BMW Service
carried out

at_____
at km_____

Next service
at the latest
at_____
or, when reached earlier
at km_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Oil change, engine, with filter	☐	☐
Checking valve clearance	☐	☐
Renewing all spark plugs	☐	☐
Renewing air cleaner insert	☐	☐
Checking or replacing air filter element (for maintenance)	☐	☐
Oil change in telescopic front forks	☐	☐
Change brake fluid in entire system	☐	☐

Notes

BMW Service
carried out

at_____
at km_____

Next service
at the latest
at_____
or, when reached earlier
at km_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Oil change, engine, with filter	☐	☐
Checking valve clearance	☐	☐
Renewing all spark plugs	☐	☐
Renewing air cleaner insert	☐	☐
Checking or replacing air filter element (for maintenance)	☐	☐
Oil change in telescopic front forks	☐	☐
Change brake fluid in entire system	☐	☐

Notes

Service confirmations

The table is used to verify maintenance and repair work as well as installed optional accessories and purchased special promotions.

Work performed	at km	Date

Work performed	at km	Date

Appendix

Certificate for electronic immobiliser 296

Certificate for Keyless Ride 298

Certificate for tyre pressure control (RDC) 300

Certificate for TFT instrument cluster 301

FCC Approval

Ring aerial in the ignition switch



To verify the authorization of the ignition key, the electronic immobilizer exchanges information with the ignition key via the ring aerial.

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.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. ◀

Approbation de la FCC

Antenne annulaire présente dans le commutateur d'allumage



Pour vérifier l'autorisation de la clé de contact, le système d'immobilisation électronique échange des informations avec la clé de contact via l'antenne annulaire.
Le présent dispositif est conforme à la partie 15 des règles de la FCC. Son utilisation est soumise aux deux conditions suivantes :

(1) Le dispositif ne doit pas produire d'interférences nuisibles, et
(2) le dispositif doit pouvoir accepter toutes les interférences extérieures, y compris celles qui pourraient provoquer une activation inopportune.

Toute modification qui n'aurait pas été approuvée expressément par l'organisme responsable de l'homologation peut annuler l'autorisation accordée à l'utilisateur pour utiliser le dispositif. ◀

Certifications

BMW Keyless Ride ID Device



USA, Canada

Product name: BMW Keyless Ride ID Device FCC ID: YGOHUF5750 IC: 4008C-HUF5750

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.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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 wilh 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	FCC ID: MRXBC5A4 IC: 2546A-BC5A4

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.

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
Adress: 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

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.

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

เครื่องโทรคมนาคมและอุปกรณ์นี้

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.

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Details described or illustrated in this booklet may differ from the vehicle's actual specification as purchased, the accessories fitted or the national-market specification. No claims will be entertained as a result of such discrepancies.
Dimensions, weights, fuel consumption and performance data are quoted to the customary tolerances.
The right to modify designs, equipment and accessories is reserved.
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Original rider's manual, printed in Germany.

Important data for refuelling:

Fuel	
Recommended fuel grade	E5 Super unleaded (maximum 15% ethanol, E15) 95 ROZ/RON 90 AKI E10
Fuel tank capacity	approx. 15 l
Reserve fuel	approx. 3.5 l
Tyre pressure	
Tyre pressure, front	2.2 bar, One-up, tyre cold 2.5 bar, Two-up and/or with luggage, tyre cold
Tyre pressure, rear	2.5 bar, One-up, tyre cold 2.9 bar, Two-up and/or with luggage, tyre cold

You can find further information on all aspects of your vehicle at:
bmw-motorrad.com

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04.2018, 2nd edition, 01