Rider´s manual

R 1250 RT
## Vehicle data/dealership details

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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 these operating instructions
Read these operating instructions carefully before starting to use your new BMW. They contain 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, they contain information on maintenance and care to help you maintain your vehicle’s reliability and safety, as well as its value.

The 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 these operating instructions to the new owner. They are an important part of the vehicle.

Suggestions and criticism
If you have questions concerning your vehicle, your authorised BMW Motorrad retailer 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.

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Overview

An important aspect of this Rider's Manual is that it can be used for quick and easy reference. Consulting the extensive index at the end of this Rider's Manual is the fastest way to find information on a particular topic or item. To first read an overview of your motorcycle, please go to Chapter 2. All maintenance and repair work on the motorcycle is documented in Chapter 12. This record of the maintenance work you have had performed on your vehicle is a precondition for generous treatment of goodwill claims. When the time comes to sell your BMW, please remember to hand over this Rider's Manual; it is an important part of the 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.

• 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.
Equipment
When you purchased your BMW motorcycle, you chose a model with individual equipment. These operating instructions describe the optional equipment (OE) offered by BMW and selected optional accessories (OA). This explains why the manual may also contain descriptions of equipment that you might not have selected. Please note, too, that on account of country-specific differences, your motorcycle might not be exactly as illustrated.

If your motorcycle contains equipment that has not been described, its description can be found in a separate manual.

Technical data
All dimensions, weights and power ratings stated in the operating instructions are quoted to the standards and comply with the tolerance requirements of the Deutsches Institut für Normung e.V. (DIN).

Technical data and specifications in this rider's manual 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.

**Currency**

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

### Additional sources of information

**Authorised BMW Motorrad retailer**

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

**Internet**

The operating instructions for your vehicle, operating and installation instructions for accessories and general information about BMW Motorrad, in relation to technology, for example, are available for download from [www.bmw-motorrad.com/manuals](http://www.bmw-motorrad.com/manuals).

### Certificates and operating licences

The certificates for the vehicle and the official operating licences for accessories can be downloaded from [bmw-motorrad.com/certification](http://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 devices

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

The type of additional data processing is determined by the provider of the respective app. The scope of the possible settings depends on the corresponding app and the operating system of the mobile device.

**Services**

**General**

If the vehicle has a wireless connection, this enables the exchange of data between the vehicle and other systems. The wireless connection is enabled by the vehicle’s own transmitter and receiver unit or using personally integrated mobile 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

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:


The legal basis for the activation and function of the intelligent emergency call system is the concluded 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 can process personal data only with the express permission of the person affected by the data processing, for example the vehicle owner.

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

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

Location determination

The position of the vehicle can be determined exclusively by the mobile phone network provider based on the mobile phone site locations. It is not possible for the provider to trace a connection between the vehicle’s VIN and the phone number of the installed SIM card. Only the manufacturer of the vehicle can link a VIN and the phone number of the SIM card installed in a particular vehicle.

Log data of emergency calls

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

Automatic emergency call

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

Sent information

When making an emergency call using the intelligent emergency call system, the system forwards the same information to the designated emergency call centre as is forwarded to the public emergency operations centre by the statutory emergency call system eCall.

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

– Accident data, for example the direction of impact detected by the vehicle sensors, to assist the emergency services response.

– Contact details, for example the phone number of the installed SIM card and the phone number of the rider, if available, to enable rapid contact with those involved in the accident if required.
Data storage
The data for an activated emergency call is stored in the vehicle. The data contains information on the emergency call, for example the location and time of the emergency call. The voice recordings of the emergency call are stored at the emergency call centre. The voice recordings of the customer are stored for 24 hours in case details of the emergency call need to be analysed. After this, the voice recordings are deleted. The voice recordings of the employee of the emergency call centre are stored for 24 hours for quality assurance purposes.

Information on personal data
The data that is processed as part of the intelligent emergency call is processed exclusively to carry out the emergency call. As part of its statutory obligation, the manufacturer of the vehicle provides information about the data that it has processed and any data that it still has stored.
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4. Passenger seat heating (⇒ 96)
5. 2nd socket
6. Storage compartment, left (⇒ 100)
7. Payload table
   Table of tyre pressures
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1. Operating instructions
2. Power socket (⇒ 208)
3. Brake-fluid reservoir, front (⇒ 180)
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### Multifunction switch, left

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2. Daytime riding light (§ 73)
3. Cruise control (§ 87)
4. Hazard warning lights (§ 75)
5. Windscreen adjuster (§ 130)
6. Auxiliary headlights (§ 73)
7. Turn indicators (§ 75)
8. Horn

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![Multifunction switch, left](image-url)
9 Multi-Controller and MENU button
Multifunction display
(⇒ 76) (⇒ 80)
ASC (⇒ 83)
- with riding modes Pro\(^\text{OE}\)
DTC (⇒ 83)
- with Dynamic ESA\(^\text{OE}\)
D-ESA (⇒ 84)
- with audio system\(^\text{OE}\)
Audio system (⇒ 108)
Multifunction switch, right
- with intelligent emergency call (OE)

1. with central locking system (OE) Lock (⇒ 101).
2. Setting riding mode (⇒ 86).
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– without intelligent emergency call\(^\text{OE}\)
1 – with central locking system\(^\text{OE}\).
   Lock (\(\Rightarrow\) 101).
2 Setting riding mode (\(\Rightarrow\) 86).
3 Emergency off switch (kill switch) (\(\Rightarrow\) 69).
4 Engine start (\(\Rightarrow\) 142)
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**NOTICE**

The brightness of the warning lights and indicator lights, the display and the instrument needle and gauge lighting is adapted automatically to suit ambient brightness.
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Meaning of the symbols at position 1:

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- Current consumption
- Range with the available fuel quantity (57)
- Average speed since the last reset (81)
- Ambient temperature (58)
- With tyre pressure control (RDC)
- Tyre inflation pressures (58)
- Stopwatch (81)
- Travelling times (82)
- Date (display depends on the configured time format) (80)
- Oil level (57)
- On-board voltage

Status indicators

1 Heated grips switched on
1 Rider's seat heating switched on
2 Passenger seat heating switched on

- with seat heating$^{OE}$

1 Damping mode
2 Load setting

- with Dynamic ESA$^{OE}$
Multifunction display

1 Riding mode (⇒ 85)
2 Clock (⇒ 80)
3 Warning symbols (⇒ 38)
4 Menu section (⇒ 76)
   – with audio system\(^\text{OE}\)
   Audio system (⇒ 108)
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   – with tyre pressure control (RDC)\(^\text{OE}\)
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9 Heated handlebar grips (⇒ 95)
10 Automatic daytime riding light (74)
11 Odometer
12 Trip recorder (82)
13 Hill Start Control (89)
14 Gear indicator; "N" indicates neutral.
15 Coolant temperature
Fuel level

**Warnings**

**Mode of presentation**

Warnings are indicated by the corresponding warning lights.

The general warning light is displayed according to the most urgent warning.

The possible warnings are listed on the following pages.

Warnings for which there are no separate warning lights are shown using the general warning light 1 in combination with a warning symbol such as 2 on the multifunction display. The 'general' warning light is yellow or red, depending on the urgency of the warning.

Up to four warning symbols can be displayed at the same time.
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Outside temperature warning

![Icon: Outside temperature warning](image)

1. The air temperature measured at the vehicle is lower than:
   - approx. 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.

EWS active

![Icon: EWS active](image)

Possible cause:
- The vehicle key being used is not authorised for starting, or communication between vehicle key and engine electronics is disrupted.
- Remove all other vehicle keys from the same ring as the vehicle key being used.
- Have the defective vehicle key replaced, preferably by an authorised BMW Motorrad dealer.

Radio-operated key out of range

- with Keyless Ride

![Icon: Radio-operated key out of range](image)

Possible cause:
- Communication between radio-operated key and engine electronics is disrupted.
  - Check the battery in the radio-operated key.
  - with Keyless Ride
  - Replace the battery of the radio-operated key (68).
  - Use the spare key or the radio-operated key with the empty battery to continue your journey.
  - with Keyless Ride
  - Battery of the radio-operated key is empty, emergency key is not available (66).
  - Loss of the radio-operated key, spare key is available (65).
- Remain calm if the warning symbol appears while you are riding. You can continue your journey.

Loss of the radio-operated key, spare key is available (65).
journey, the engine will not switch off.
- Have the faulty radio-operated key replaced by an authorised BMW Motorrad retailer.

Replace the battery of the radio-operated key

![Battery Icon]

lights up yellow.

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 (⇒ 68).

Coolant temperature too high

![Temperature Icon]

lights up red.

The temperature reading turns red.

**ATTENTION**

Riding with overheated engine

Engine damage
- Compliance with the information set out below is essential.

Possible cause:
The coolant temperature is too high.
- If possible, ride in the part-load range to cool down the engine.
- If the coolant temperature is frequently too high, have the fault rectified as soon as possible by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Engine-oil level too low

![Oil Level Icon]

appears on the display

Possible cause:
The electronic oil-level sensor has registered a low oil level. If the vehicle is not standing upright on a smooth, level surface, the message might appear even though the oil level is correct. The next time you stop for fuel:
- Check the engine oil level (⇒ 176).
- If the oil level in the sight glass is too low:
  - Topping up the engine oil (⇒ 177).
When the oil level in the sight glass is correct:
- Check whether the preconditions for the electronic oil-level check are met.
If the message appears repeatedly, even though the oil level is slightly below the maximum mark:
- Seek the advice of a specialist workshop, preferably an authorised BMW Motorrad dealer.

**Emissions warning**

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

**Engine fault**

⚠️ lights up yellow.

⚠️ appears on the display

Possible cause:
The engine control unit has diagnosed a fault.

⚠️ **WARNING**

Unusual ride characteristics when engine running in emergency-operation mode

Risk of accident
- Avoid accelerating sharply and overtaking.
- If you continue to ride be prepared for unusual engine behaviour (low power, poor throttle response, abrupt stalling, etc.).
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad dealer.

**Severe engine fault**

⚠️ flashes yellow.

⚠️ appears on the display

Possible cause:
The engine control unit has diagnosed a severe fault.

⚠️ **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.
If you continue to ride be prepared for unusual engine behaviour (low power, poor throttle response, abrupt stalling, etc.).

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

**Front light failure**

- lights up yellow.
- appears on the display

Possible cause:
Low-beam headlight, high-beam headlight, side light or front turn indicator faulty.
The low-beam headlight or one of the LED flashing turn indicators has to be replaced.
- Consult a specialist workshop, preferably an authorised BMW Motorrad Retailer.

**Rear light failure**

- lights up yellow.
- appears on the display

Possible cause:
Rear light, brake light or rear flashing turn indicator defective.
The LED rear light must be replaced.
- Consult a specialist workshop, preferably an authorised BMW Motorrad dealer.

**Light failure**

- lights up yellow.
- appears on the display

Possible cause:
A combination of light failures has occurred.
- Consult a specialist workshop, preferably an authorised BMW Motorrad dealer.

**DWA battery weak**

- with anti-theft alarm (DWA)OE
- appears on the display

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

Possible cause:
The integral battery in the anti-theft alarm (DWA) has lost a significant proportion of its original capacity. There is no assurance of how long the DWA anti-theft alarm can remain operational if the vehicle's battery is disconnected.
DWA battery flat
- with anti-theft alarm (DWA) OE

⚠️ lights up yellow.

⚠️ 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 (DWA) has lost its entire original capacity. There is no assurance that the DWA anti-theft alarm will be operational if the vehicle’s battery is disconnected.

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

On-board system voltage low

Generator power is only just sufficient to supply all consumers and charge the battery.

Possible cause:
Too many consumers switched on. On-board system voltage tends to drop particularly at low engine rpm and when the engine is idling.

When riding at low engine rpm switch off all consumers that are not necessary for road safety (e.g. heated body warmer or auxiliary headlights).

On-board system voltage critical

⚠️ lights up yellow.

⚠️ appears on the display

Generator power is no longer sufficient to supply all consumers and charge the battery. In order to ensure that the engine can be started and the motorcycle ridden, the on-board electronics switch off the electricity supply to the on-board sockets and the auxiliary headlights. In extreme cases the seat heating and the grip heating might also be shut down.

Possible cause:
Too many consumers switched on. On-board system voltage tends to drop particularly at low engine rpm and when the engine is idling.
• When riding at low engine rpm switch off all consumers that are not necessary for road safety (e.g. heated body warmer or auxiliary headlights).

Battery charge voltage insufficient

lights up red.

appears on the display

WARNING Failure of the vehicle systems

Risk of accident

• Do not continue your journey.

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

Possible cause:

Alternator or alternator drive faulty or fuse for alternator regulator has blown.

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

Tyre pressure outside the permitted tolerance

– with tyre pressure control (RDC) OE

flashes red.

+ the critical tyre pressure shows red.

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

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

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

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)

⚠️ lights up yellow.

⚠️ + "--" or "-- --" appears on the display

Possible cause:
Motorcycle is fitted with wheels not equipped with RDC sensors.
• Fit wheels and tyres equipped with RDC sensors.

Possible cause:
1 or 2 RDC sensors have failed or a system error has occurred.
• Have the fault rectified by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Transmission fault
- with tyre pressure control (RDC)

⚠️ + "--" or "-- --" appears on the display

Possible cause:
The vehicle did not reach the minimum required speed (min 30 km/h).

⚠️ RDC sensor is not active

Increase speed above this threshold and observe the RDC readings. Assume that a permanent fault has not occurred unless the ‘General’ warning light comes on to accompany the symptoms. Under these circumstances:
• Have the fault rectified by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Possible cause:
Wireless communication with the RDC sensors has been disrupted.
Possible causes include radio-communication systems operating in the vicinity and interfering with the link between the RDC control unit and the sensors.
• Move to another location and observe the RDC readings. Assume that a permanent fault has not occurred unless the ‘General’ warning light comes
on to accompany the symptoms. Under these circumstances:
- Have the fault rectified by a specialist workshop, preferably an authorised BMW Motorrad dealer.

**Battery for tyre pressure sensor weak**
- with tyre pressure control (RDC) OE

⚠️ lights up yellow.

⚠️ appears on the display

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

Possible cause:
The integral battery in the tyre-pressure sensor has lost a significant proportion of its original capacity. There is no assurance of how long the tyre pressure control system can remain operational.
- Seek the advice of a specialist workshop, preferably an authorised BMW Motorrad dealer.

**ABS self-diagnosis not completed**
⏰ flashes.

Possible cause:
The ABS self-diagnosis did not complete. (The motorcycle has to reach a defined minimum speed for the wheel speed sensors to be checked: 5 km/h)

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

**ABS fault**
⚠️ lights up.

Possible cause:
The ABS control unit has detected a fault. The partially integral brake and the Dynamic Brake Control function have failed. The ABS function is not available.
It is possible to continue riding taking the failed ABS function into consideration. Take note of the further information on situations that may lead to an ABS fault (§ 160).

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

**ASC/DTC intervention**

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

**ASC/DTC self-diagnosis not completed**

- slow-flashes.

Possible cause:

- ASC/DTC self-diagnosis not completed

The ASC/DTC 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)

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

**ASC/DTC switched off**

- lights up.

Possible cause:

- The rider has switched off the ASC/DTC system.

- Switch on ASC/DTC.

**ASC/DTC fault**

- lights up.

Possible cause:

- The ASC/DTC control unit has detected a fault. The ASC/DTC function is not available.

- You can continue to ride. Bear in mind that the ASC/DTC function is not available. Take note of the more detailed information on situations that can lead to a ASC/DTC fault (§ 162).

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

⚠️ lights up yellow.

⚠️ appears on the display

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

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

Hill Start Control active

 관한 green holding symbol is displayed.

Possible cause:
Hill Start Control (☞ 169) has been activated automatically or activated by the rider.

- Operate Hill Start Control (☞ 89).
- with riding modes Pro DE
- Switching automatic Hill Start Control Pro on and off (☞ 91).

Automatic Hill Start Control Pro active

- with riding modes Pro DE

 관한 white holding symbol is displayed.

Possible cause:
The automatic Hill Start Control Pro is active. If the motorcycle stops on an incline of > 5%, the motorcycle is automatically held in place by the brakes.

- Switch off automatic Hill Start Control Pro.
- Switching automatic Hill Start Control Pro on and off (☞ 91).

Hill Start Control cannot be activated

 관한 yellow holding symbol is displayed.

Possible cause:
Hill Start Control cannot be activated.

- Fold in side stand.
- Hill Start Control functions only when the side stands are folded in.
- Start the engine.
- Hill Start Control functions only when the engine is running.
Hill Start Control automatically deactivated

⚠️ Flashes yellow.

Yellow holding symbol flashes briefly.

Possible cause:
Hill Start Control has been automatically deactivated.
- Side stand has been folded out.
- Hill Start Control is deactivated when the side stand is folded out.
- Engine has been switched off.
- Hill Start Control is deactivated when the engine is switched off.
- Operate Hill Start Control (p. 59).

Central locking locked
- with central locking system OE

⚠️ The locked symbol appears on the display.
All locks in the central locking system are locked.

Gear not calibrated
- with shift assistant Pro OE

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

Possible cause:
- with shift assistant Pro OE

The transmission sensor has not been completely calibrated.
- Engage idle position N and run the engine at standstill for a minimum of 10 seconds to calibrate the idle position.
- Use clutch control to engage all gears and ride for a minimum of 10 seconds in each engaged gear.

» The gear indicator stops flashing once the transmission sensor has been successfully calibrated.
» Once the transmission sensor has been completely calibrated, shift assistant Pro will operate as described (p. 167).

If the calibration process was unsuccessful, have the fault eliminated by a specialist workshop, we recommend a BMW Motorrad Partner.

Service-due indicator
If a service is due, the service symbol and the service date in place of the total distance are briefly displayed subsequent to the Pre-Ride-Check.
If the service is overdue the "General" warning light briefly shows yellow and the service symbol lights up and remains ON.
If the countdown to the next service is less than one month, the service-due date appears on the display.

If the vehicle covers long distances in the course of the year, under certain circumstances it might be necessary to have it serviced at a date in advance of the forecast due date. If the countdown distance to the early service is less than 1000 km, the countdown distance appears on the display.

**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 overdue**

appears on the display

General warning light briefly shows yellow after the Pre-Ride-Check.

Possible cause:

- A necessary service has not been carried out.
- Have servicing carried out as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad dealer.

**Emergency call display**

– with intelligent emergency call

If a manual emergency call is triggered by the rider during riding, the emergency call symbol is displayed.

**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 overdue**

appears on the display

General warning light briefly shows yellow after the Pre-Ride-Check.
During the connection setup, a progress bar 1 is displayed under the emergency call symbol 2. If a connection has been established, the symbol 1 is displayed. If no connection could be established, the symbol 1 is displayed. If there is no mobile phone reception, the symbol 1 is displayed. If no emergency call is possible due to a technical failure, the symbol 1 is displayed.

**Emergency call fault**
- with intelligent emergency call

The symbol for an emergency call 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 dealer.

**Fuel down to reserve**

Lights up.

Fuel-level reading turns yellow.

**WARNING**

Irregular engine operation or engine shutdown due to lack of fuel

Risk of accident, damage to catalytic converter

- Do not run the fuel tank dry.

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

 Reserve fuel approx. 4 l

 Refuelling (p. 152).

**Range**

The range readout indicates how far you can ride with the fuel remaining in the tank. The figure for average consumption used to calculate range is not shown and might not be the same as the average-consumption reading that appears on the display.

You must put at least five litres of fuel into the fuel tank for the new level to be registered correctly. If the sensor cannot register the new level the range readout cannot be updated.

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 calculated only when the side stand is in the retracted position.

**NOTICE**

The calculated range is only an approximate figure. Consequently, BMW Motorrad recommends that you should not try to use the full range before refuelling.

**Electronic oil-level check**

The electronic oil-level check provides information about the oil level in the engine.

The preconditions for the electronic oil-level check are as follows:

- Engine at operating temperature.
- Engine idling for at least ten seconds.
- No brake applied.
- Side stand folded in.
Motorbike standing upright.

The readings mean:

**OK**: oil level is correct.

**CHECK!**: check the oil level the next time you stop for fuel.

**-- --**: oil level cannot be measured (conditions as stated above not satisfied).

### 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.

If ambient temperature drops below the threshold this warning appears, drawing your attention to the risk of black ice forming. The display automatically switches from any other mode to the temperature reading when the temperature drops below this threshold for the first time.

<table>
<thead>
<tr>
<th>Threshold for ambient temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>approx. 3 °C</td>
</tr>
</tbody>
</table>

### Tyre pressures

- with tyre pressure control (RDC)

The tyre-pressure readings in the multifunction display are temperature-compensated and are always referenced to the following tyre-air temperature:

<table>
<thead>
<tr>
<th>Tyre Pressure</th>
<th>Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front</td>
<td>2.5 bar</td>
</tr>
<tr>
<td>Rear</td>
<td>2.9 bar</td>
</tr>
</tbody>
</table>

The front tyre pressure is on the left 1, the reading on the right 2 is the rear tyre pressure. Immediately after the ignition is switched on "-- --" is displayed.
RDC sensor is not active

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

If the pressure in a tyre drops to a critical level the corresponding status indicator shows red.

- The tyre warning symbol also appears on the display.

- The "General" warning light flashes red.

The detailed description of BMW Motorrad RDC starts on page 166.
Status indicators
Operation

Ignition switch/steering lock ........ 62
Ignition with Keyless Ride ......... 63
Electronic immobiliser EWS ........ 68
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Ignition switch/steering lock

Keys
You receive 2 vehicle keys. If a key is lost or mislaid, consult the information on the electronic immobiliser (EWS) (68).

One-key system
- Ignition switch/steering lock
- Cases locks
- Stowage-compartment lock
- Fuel filler cap
- Seat lock
- Stowage compartment
- with topcase
- Topcase
- with audio system
- Audio compartment

Engaging steering lock
- Turn the handlebars all the way to the left.

Switching on ignition
- Insert the vehicle key into the ignition switch and turn it to position 1.
  - Side lights and all function circuits are switched on.
  - Pre-Ride-Check is performed (143)
  - ABS self-diagnosis is in progress (144)
  - ASC self-diagnosis is performed (145)
  - with riding modes Pro
  - DTC self-diagnosis is in progress (145)

- Turn the ignition key to position 1, while moving the handlebars slightly.
  - Ignition, lights and all function circuits switched off.
  - Handlebars are locked.
  - Vehicle key can be removed.
Welcome lights
- Switch on the ignition.
  » The side lights briefly light up.
    - with daytime riding light OE
  » The daytime riding lights briefly light up.<1
    - with additional headlight OE
  » The LED auxiliary headlights briefly light up.<1

Switching off ignition
- Turn the ignition key to position 1.
  » When the ignition is switched off, the instrument cluster remains switched on for a short time and displays any existing fault messages.
  » Handlebars not locked.
  » Electrically powered accessories remain operational for a limited period of time.
  » The battery can be recharged via the socket.
  » Vehicle key can be removed.
    - with daytime riding light OE
  » The daytime riding light goes out soon after the ignition is switched off.<1
    - with additional headlight OE
  » The LED auxiliary headlights go out soon after the ignition is switched off.<1

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 light goes out as soon as the radio-operated key or the emergency key is found.
The light goes out briefly if the search times out without the radio-operated key or the emergency key being found.
You receive one radio-operated key and one spare key. If a key is lost or mislaid, consult the notes on the electronic immobiliser (EWS) (68).
Ignition, fuel filler cap and anti-theft alarm system all work with
the radio-operated key. Seat lock, stowage compartment, top-case and cases can be locked and unlocked manually.

NOTICE

The vehicle cannot be started or the central locking system locked or unlocked if the radio-operated key is not within range (e.g. key inside one of the cases or the topcase). If the key is out of range, the ignition is switched off after approximately 1.5 minutes, but the central locking system is not locked.

It is advisable to keep the radio-operated key on your person (e.g. in a jacket pocket) and to have the spare key with you as an alternative.

Range of the Keyless Ride radio-operated key 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.

Briefly press the 1 button to unlock the steering lock.

Switching on ignition

Requirement

Radio-operated key is within range.

Version 1:

- Briefly press button 1.
  - Side lights and all function circuits are switched on.
  - with daytime riding light OE

There are two ways of activating the ignition.
– with Headlight Pro\(^{OE}\)
  » Daytime riding light is switched on.<\(^\text{<1}\)
– with additional headlight\(^{OE}\)
  » LED auxiliary headlights are switched on.<\(^\text{<1}\)
– Pre-Ride-Check is performed. (\(\Rightarrow\) 143)
– ABS self-diagnosis is in progress. (\(\Rightarrow\) 144)
– ASC self-diagnosis is performed. (\(\Rightarrow\) 145)
– with riding modes Pro\(^{OE}\)
– DTC self-diagnosis is in progress. (\(\Rightarrow\) 145)\(^{<1}\)

### 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. (\(\Rightarrow\) 143)

### Switching off ignition

#### Requirement
Radio-operated key is within range.

- There are two ways of deactivating the ignition.
- ABS self-diagnosis is in progress. (\(\Rightarrow\) 144)
- ASC self-diagnosis is performed. (\(\Rightarrow\) 145)
- with riding modes Pro\(^{OE}\)
- DTC self-diagnosis is in progress. (\(\Rightarrow\) 145)\(^{<1}\)

#### Version 1:
- Short-press button 1.
  » Light is switched off.
  » Handlebars (steering lock) are not locked.

#### Version 2:
- Turn the handlebars all the way to left.
- Press and hold down button 1.
  » Light is switched off.
  » The steering lock engages.

#### Loss of the radio-operated key, emergency key is available

#### Requirement
Spare key is available.

- Make sure the ground is level and firm and place the motorcycle on its stand.
- If a key is lost or mislaid, consult the notes on the electronic immobiliser (EWS).
If you happen to lose or mislay the radio-operated key while on a journey, you can start the vehicle with the spare key.

Insert spare key 1 centred into the gap above instrument cluster 2 (arrow).

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.
Start engine (1 142).

Battery of the radio-operated key is empty, emergency key is not available

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

Remove screws 1.
Carefully remove speaker unit 2, noting the plug.

Remove screws 2.
Ease speaker cover 1 to the right to remove.

Disconnect plug 1.

– with audio system OE
• Flip open the key bit.
• Hold the radio-operated key by the key bit 1.

1

• Hold the radio-operated key to the rear of the instrument cluster 1 (arrow), level with the warning and indicator lights.

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.
  – Start engine (⇒ 142).

  – with audio system OE

• Connect plug 1.

• Seat speaker unit 2 in the mount.
• Install screws 1.<

• Hold speaker cover 1 in position and install screws 2.
Replace the battery of the radio-operated key

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

- The battery in the radio-operated key is not at full capacity.
- Change the battery.
- Press button 1.
- Bitted key flips out.
- Push up battery cover 2.
- Remove battery 3.
- Dispose of the old battery in accordance with all applicable laws and regulations; do not attempt to dispose of batteries as domestic waste.

**ATTENTION**

Unsuitable or incorrectly inserted batteries

Component damage

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

**Battery type**

For Keyless Ride radio-operated key

CR 2032

- Install seal 1 and battery cover 2.
- Red LED on the instrument panel flashes.
- The radio-operated key is again ready for use.

Electronic immobiliser EWS

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/steering lock. The engine control unit will not permit the engine to be started unless the key is identified as “authorised.”

**NOTICE**

Another vehicle key attached to the same ring as the vehicle key used to start the engine could “irritate” the electronics, in which case the enabling signal for start-
ing is not issued. The warning with the key symbol appears in the multifunction display.

Always keep other vehicle keys separate from the vehicle key used to start the engine.

If you lose a key, you can have it barred by your authorised BMW Motorrad dealer.

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 extra keys only through an authorised BMW Motorrad dealer. 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.

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

**WARNING**

**Operation of the kill switch while riding**

- Risk of fall due to rear wheel locking
- Do not operate the kill switch when riding.
Intelligent emergency call

Emergency call via BMW

Only press the SOS button in an emergency or when help is necessary.

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.
• Press the SOS button 2.

The remaining time until the emergency call is transmitted is displayed via the progress bar. During this time, the emergency
call can be cancelled by pressing and holding the SOS button.
• 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 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 light fall or a crash was detected.
» An acoustic signal is sounded.

The remaining time until the emergency call is transmitted is displayed via the progress bar. During this time, the emergency call can be cancelled by pressing and holding the SOS button.
• If possible, remove helmet and stop engine.
» After expiry of the timer, a voice contact to the BMW Call Center is established.
The connection was established.

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
Side light
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.

Low-beam headlight
The low-beam headlight switches on automatically when you start the engine.

High-beam headlight and headlight flasher

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

**NOTICE**
The high-beam headlight can also be switched on when the engine is not running.

Parking lights
- Switch off the ignition.

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

Operating LED auxiliary headlights
– with additional headlight OE

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

Press button 1 to switch on the LED additional headlights. The telltale light shows.

If this warning symbol appears it tells you that the on-board system voltage is low. If applicable, the auxiliary headlights might have been temporarily switched off.

Press button 1 again to switch off the LED additional headlights.

Daytime riding light
– 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.
- Start engine (142).
- Call up the Settings menu and then select Vehicle.
- Select DRL from the menu and switch from Automatic DRL to OFF.
- Press button 1 to switch on the daytime riding light. The indicator light for the daytime running light illuminates.

» The low-beam headlight, the front side lights and the auxiliary headlight 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. The auxiliary headlight is also switched on again.

**NOTICE**
The daytime riding light is switched off after approximately 2 seconds and the high-beam headlight, low-beam headlight, front side lights and the additional headlight, as appropriate, are switched on if the high beam is switched on while the daytime riding light is 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.
- Call up the Settings menu and then select Vehicle.
Select the DRL menu item and switch Automatic DRL to On. The symbol for the automatic daytime running light shows in the display.

- If the ambient brightness decreases below a certain value, the low beam headlight is automatically switched on (e.g. in a tunnel). When sufficient ambient brightness is detected, the daytime riding light is switched back on. When the daytime riding light is active, the daytime riding light symbol is displayed in the multifunction display.

**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 re-activated, in other words the daytime riding light is switched on again when ambient light is bright enough.

**Hazard warning lights**
**Operating hazard warning flashers**
- Switch on the ignition (62).

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

**Turn indicators**
**Operating the turn indicators**
- Switch on the ignition.

- 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.
Push button 1 to the left to switch on the left turn indicators.
Push button 1 to the right to switch on the right turn indicators.
Centre button 1 to cancel the turn indicators.

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
Selecting menu
Press button 2 to step through the sequence of menus, starting with the Dynamic ESA menu. Each time you press button 2 you call up the next menu in the sequence; the number of menus depends on the options fitted to the motorcycle.
You also have the option of pressing button 1 for direct...
access to a favourite menu of your choice.

With the exception of the Audio section, you cannot access the Settings menu unless the vehicle is at a standstill.

The menu you selected appears at position 1. The submenu you selected 2 has a border.

NOTICE
See the separate Quick Reference Guide for an overview of all menus.

Selecting menu items

Use Multi-Controller 1 to move the cursor in a menu.

An arrow 1 at the top or bottom of the display indicates that there are other items in this menu that you can view by turning the Multi-Controller in the corresponding direction. If arrow 2 appears in the cursor, you can call up a submenu by pressing the Multi-Controller to the right (for information on the different meaning in relation to average values and list selections, see (78)).
Configuring settings

Direct selection
Move the cursor to a menu item that does not require any further settings to immediately activate it.

Resetting values
You can reset an average value marked with an arrow 1 by long-pressing the Multi-Controller to the right.

Selecting from a list
A circle 1 beside each selectable item means that the items are part of a selection list. The current selection has been highlighted with a dot in the circle. Select a list item with the cursor and press the Multi-Controller towards the right to activate or deactivate it and modify the selection.
Setting numerical values
If there are one or more numerical values between the arrows 1, you can increase the values by turning the Multi-Controller up or reduce the values by turning it down. Press the Multi-Controller towards the right or left to change between values.

Setting relative values
Adjust settings between two limit values using a bar display. Turn the Multi-Controller towards the top to increase values and turn it towards the bottom to reduce the value you would like to adjust.

Exiting a menu
Arrow 1 appears when you are in a submenu.
Push Multi-Controller 1 to the left to return to the next highest menu; press MENU button 2 to return straight to the main menu. To hide the menus, push Multi-Controller 1 to the left in a main menu.

**Selecting a favourite menu**
- Select the menu of your choice.

**Adapting mode of presentation**
- Hold down button 1. The lozenge appears to the right of the selected menu.
- The menu you have selected will subsequently be called up whenever you press button 1.

- Language: Display language (German, English, Spanish, Italian, French, Dutch, Portuguese)
- Time format - Clock format: Clock in 12-hour format (12 h) or in 24-hour format (24 h)
- Time format - Date format: Date in day.month.year format (dd.mm.yy) or in month/day/year format (mm/dd/yy)
- Time format - GPS time: Accept GPS time and GPS date from the built-in navigation system (On), (Off)
- Brightness: Brightness of the display and the instruments
- Start logo: Show start logo after the ignition is switched on (On), (Off)
- Default status: Restore factory default settings (when Reset? appears on the display, push the Multi-
Controller to the right and hold it in this position.
- Background: Display when the radio is off
  Empty: Nothing on the display
  Logo (RT): Logo
  Speed ind.: Digital speedometer reading.
- Use the Multi-Controller to configure the desired settings.

On-board computer
Select display
- Call up the Information menu and then select the desired information.

The following items of information can be displayed in panel 1:
- $\bar{c}$ consumption: Average consumption
- Consumption: Current consumption
- Range: Range with fuel remaining in fuel tank
- $\bar{c}$ speed: Average speed
- Temperature: Ambient temperature
- Tyre pressure: Tyre pressures
- Stopwatch: Stopwatch
- Trav. times: Travel times
- Date: Current date
- Oil level: Engine oil level
- Veh. voltage: Vehicle voltage
- Off: No display

Resetting the average values
- Call up the Information menu and then select the average value you would like to reset.
- Push the Multi-Controller to the right and hold it in this position until the average value is reset.

Operating the stopwatch
- Call up the Information menu and then select Stopwatch.
With the stopwatch stopped, push Multi-Controller 1 to the right to start the stopwatch.
> The stopwatch continues timing even if you select some other reading or switch off the ignition.
> When the stopwatch is running, push Multi-Controller 1 to the right to stop the stopwatch.
> Keep Multi-Controller 1 pushed to the right to reset the stopwatch.

**Measuring travel times**
- Call up the Information menu and then select Trav. times.
- Push Multi-Controller 1 to the right and hold it in this position to reset the travel time.
- Timing continues even if you select some other reading or switch off the ignition.

**Trip recorder**

**Selecting a trip recorder**
- Switch on the ignition.
- Go to Trip menu with Multi-Controller 1, then select the desired trip recorder 2.
- The following counters can be displayed:
  - Trip recorder 1 (Trip 1)
  - Trip recorder 2 (Trip 2)

**Time during which the motorcycle was on the move since the last reset.**

**Time during which the motorcycle was at a standstill since the last reset.**
The automatic trip recorder \(\text{(Trip Auto.)}\) automatically resets eight hours after the ignition is switched off.

### Resetting trip recorder
- Switch on the ignition.
- Select the desired trip recorder.
- Keep Multi-Controller 1 pressed to the right until the trip recorder 2 has been reset.

### Automatic Stability Control (ASC)

#### Switching ASC function off and on
- Switch on the ignition.
- Call up the Settings menu and then select the ASC menu item.
- Select \text{Off (1x)} to switch off ASC once and reactivate it when the ignition is switched on the next time.
- Select \text{On} to switch on the ASC. Alternatively: switch the ignition off and then on.
- The ASC indicator and warning light starts flashing.

### Dynamic Traction Control (DTC)

- with riding modes Pro OE

#### Switching the DTC function off/on
- Switch on the ignition.
- Open the Settings menu and then select the DTC menu item.
NOTICE
This menu cannot be called up while the motorcycle is on the move.

Select Off (1x) to switch off DTC once until the next time you switch on the ignition.

NOTICE
A goes out, if self-diagnosis has not completed the DTC indicator and warning light starts flashing.

Electronic Suspension Adjustment (D-ESA)  with Dynamic ESA OÉ

Dynamic ESA possible settings
The electronic chassis and suspension setting Dynamic ESA is able to adjust your motorcycle automatically to the load. If the spring setting is set to AUTO, the rider does not have to change the load setting.

See the "Engineering details" section for more information on Dynamic ESA (⇒ 163).

Available damping modes
– For comfortable on-road riding: ROAD
– For dynamic on-road riding: DYNA

Available load settings
– Predefined minimum spring setting: MIN
– Active riding position equaliser with automatic spring setting: AUTO
– Predefined maximum spring setting: MAX

NOTICE
BMW Motorrad recommends the Auto chassis and suspension setting.

Adjusting the chassis and suspension
• Start the engine.
You can adjust the damping characteristic while the motorcycle is on the move.

- Call up the Dynamic ESA menu.

The possible damping settings are displayed.
- ROAD: Damping for comfortable on-road riding.
- DYNA: Damping for dynamic on-road riding.
- Select the damping characteristic you want or move the cursor down to set the vehicle load.

The load cannot be set while the motorcycle is in motion.

The possible load settings are displayed.
- MIN: Minimum spring setting
- AUTO: Automatic spring setting
- MAX: Maximum spring setting
- Select the desired loading variant.
- The chassis and suspension is adjusted as per the selection and the Dynamic ESA display is adapted to the new setting. Symbols for load and damping action are shown in grey during the adjustment procedure.

Riding mode

Using the riding modes

BMW Motorrad has developed 3 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)
- Dynamic riding on a dry road surface.

The optimum interplay of engine characteristic and ASC/DTC control is provided for each of these three scenarios.
The chassis and suspension setting also adjusts to the chosen scenarios.

**Setting riding mode**

- Switch on the ignition (62).

- Press button 1.

**NOTICE**

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

- Press button 1 repeatedly until the required riding mode is indicated next to the selection arrow.

The following ride modes can be selected:

- **RAIN**: For riding on a rain-wet road.
- **ROAD**: For riding on a dry road.
- **DYNA**: For dynamic riding on a dry road.

- with Dynamic ESA<sup>OE</sup>

The following riding mode can also be selected:

- **DYNA**: For dynamic riding on a dry road.

> 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 the idle position.
- Brake is not applied.
- Cruise control is not active.
After activating the new riding mode, the symbols for coolant temperature and fuel level are displayed again.

The adjusted riding mode with the associated adaptations of ASC/DTC and Dynamic ESA remain available even after having switched off the ignition.

**Cruise-control system**

- with cruise control\(^\text{OE}\)

**Switching on cruise control**

- Slide switch 1 to the right.

**Saving road speed**

- Button 2 is enabled for operation.

**Accelerating**

- Briefly push button 1 forward.
- Speed is increased by approx. 1 km/h each time you push the button.
- Push button 1 forward and hold it in this position.
- The motorcycle accelerates with infinite variability (no steps).
- The current speed is maintained and saved if button 1 is not pushed again.

**Adjustment range for cruise control (gear-dependent)**

10...210 km/h

Telltale light for cruise control shows.

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

- Briefly push button 1 back.
- Speed is reduced by approx. 1 km/h each time you push the button.
- Push button 1 back and hold it in this position.
- The motorcycle decelerates with infinite variability (no steps).
- The current speed is maintained and saved if button 1 is not pushed again.

Deactivating cruise control

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

**NOTICE**
Whenever the Pro shift assistant shifts down, cruise control is automatically disengaged for safety reasons.

**NOTICE**
For safety reasons, cruise control is deactivated automatically when the ASC and DTC systems intervene.
- Indicator light for cruise control goes out.

Resuming former cruising speed

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

**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.
Telltale light for cruise control shows.

Switching off cruise control

- Slide switch 1 to the left.
  » The system is deactivated.
  » Button 2 is disabled.

Hill Start Control

Operating

Hill Start Control Requirement

Vehicle stationary and upright, engine running.

ATTENTION

Failure of the drive-off assistant

Risk of accident

- Secure the vehicle by braking manually.

NOTICE

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

NOTICE

See the section entitled "Engineering details" for more information on Hill Start Control.

- Apply firm pressure to hand-brake lever 1 or to the foot-brake lever and then quickly release the lever.

Green holding symbol is displayed.

- Hill Start Control is activated.
  - To switch off the Hill Start Control, operate the brake lever 1 or footbrake lever again.
  - The holding symbol disappears.
  - Alternatively, ride off in 1st or 2nd gear.
NOTICE
When riding off, Hill Start Control is automatically deactivated.

Once the brake has been fully released, the holding symbol disappears.

> Hill Start Control is deactivated.
> See the "Engineering details" section for more information on Hill Start Control.
> Hill Start Control function (169)

Operating Hill Start Control Pro
with riding modes Pro OE

Requirement
Vehicle stationary and upright, engine running.

Requirement
Automatic Hill Start Control Pro switched on.

ATTENTION
Failure of the drive-off assistant
Risk of accident
- Secure the vehicle by braking manually.

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

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

NOTICE
- Apply firm pressure to hand-brake lever 1 or to the foot-brake lever and then quickly release the lever.
- Alternatively, apply the brake for about one second beyond the vehicle reaching a standstill on an incline of at least 5 %.
- Green holding symbol is displayed.

> Hill Start Control Pro is activated.
> To switch off the Hill Start Control Pro, operate the brake lever 1 or footbrake lever again.
NOTICE
If Hill Start Control Pro has been deactivated by means of the handbrake lever, automatic Hill Start Control is deactivated for the next 4 m.

White holding symbol is displayed.

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

NOTICE
When riding off, Hill Start Control Pro is automatically deactivated.

White holding symbol is displayed.

- Hill Start Control Pro is deactivated.
- See the "Engineering details" section for more information on Hill Start Control Pro:

Hill Start Control function (⇒ 169)

Switching automatic Hill Start Control Pro on and off
- with riding modes Pro\OE
- Switch on the ignition.
- Go to menu Settings, then select menu item HSC AUTO.

To switch on automatic Hill Start Control Pro, select On.
- White holding symbol is displayed.

If the brake is actuated for approximately one second after the vehicle has come to a standstill and the motorcycle is on a gradient of at least 5%, Hill Start Control Pro is automatically activated.

To switch off automatic Hill Start Control Pro, select Off.
- The selected setting remains stored even after the ignition is switched off.

Anti-theft alarm (DWA)
Activation
- with anti-theft alarm (DWA)\OE
- Switch on the ignition (⇒ 62).
- DWA Adapting (⇒ 94).
- 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.
> - with central locking system \text{OE} or
> - with Keyless Ride \text{OE}

Switch off the ignition.
Press button 1 of the remote control or radio-operated key twice.

To deactivate the motion sensor (e.g. to transport the motorcycle by train when the severe movements may activate the alarm), press button 1 of the remote control or radio-operated key again during the activation phase.
Turn indicators flash three times.
Confirmation tone sounds three times (if programmed).
Motion sensor has been deactivated.

**Alarm signal**
A DWA alarm can be triggered by:
- motion sensor
- an attempt to use an unauthorised vehicle key to switch on the ignition
- disconnection of the DWA anti-theft alarm from the motorcycle's battery (DWA internal battery in the anti-theft alarm provides power - alarm tone only, the turn indicators do not flash)
All functions are sustained even if the internal battery of the DWA anti-theft alarm system is flat; the only difference is that an alarm cannot be triggered if the system is disconnected from the motorcycle’s battery.

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

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

**Light signals issued by the DWA LED:**
- Flashes 1x: Motion sensor 1
- Flashes 2x: Motion sensor 2
- Flashes 3x: Ignition switched on with unauthorised vehicle key
- Flashes 4x: Disconnection of the DWA anti-theft alarm from the motorcycle’s battery
- Flashes 5x: Motion sensor 3

- with central locking system\(^{\text{OE}}\) or
- with Keyless Ride\(^{\text{OE}}\)

An activated alarm can be cancelled at any time by pressing button 2 of the remote control or radio-operated key without deactivating the DWA.

**Deactivation**
- with anti-theft alarm (DWA)\(^{\text{OE}}\)
  - Kill switch in operating position (run).
  - Switch on the ignition.
  - Turn indicators flash once.
Confirmation tone sounds once (if programmed).

DWA has been switched off.

- with central locking system
- or
- with Keyless Ride

Press button 1 of 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.

Confirmation tone sounds once (if programmed).

DWA has been switched off.

DWA Adapting

- with anti-theft alarm (DWA)

Call up the Settings menu and select the Vehicle - Alarm system menu item.

The following settings are available:

- Automatic mode - On: alarm system is automatically activated after having switched off the ignition.
- Automatic mode - Off: alarm system must be activated with the remote control after having switched off the ignition.
- Alarm tone: alarm tone type.
- Key sound - On: the turn indicators and a sound confirm having switched the alarm system on or off.
- Key sound - Off: exclusively the turn indicators confirm having switched the alarm system on or off.

Configure the desired settings using the Multi-Controller.
Heating
Operating the heated handlebar grips
• Start the engine.

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

• Call up the Grip heating menu.

The symbol 1 shows that the grip heating is switched on.

Front-seat heating
- with seat heating OE
• Start the engine.

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

• Call up the Seat heating menu.

The rider’s seat can be heated in five levels. The fifth level is intended to quickly heat up the seat; you should then shift down to one of the lower levels.

• Select the heating stage you want.

The grips can be heated in five levels. The fifth level is intended to quickly heat up the grips; you should then shift down to one of the lower levels.

• Select the heating stage you want.
The symbol \( \mathbf{1} \) shows that the rider’s seat heating is switched on.

If this warning symbol appears it tells you that the on-board system voltage is low. If applicable, the seat heating might have been temporarily switched off.

**Rear-seat heating**

– with seat heating\(^{\text{OE}}\)

- Start the engine.

**NOTICE**

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

- Set switch \( \mathbf{1} \) to the desired heating stage.

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

- 2 Switch centred: Heating off.
- 3 One-dot section of switch pressed: 50 % heating power.
- 4 Two-dot section of switch pressed: 100 % heating power.
The symbol 1 shows that the passenger seat heating is switched on.

If this warning symbol appears it tells you that the on-board system voltage is low. If applicable, the seat heating might have been temporarily switched off.

Rider's seat
Removing front seat

- Turn ignition key 2 clockwise.
- Slightly raise front seat 1 at the back.
- Work front seat 1 to the rear to disengage it from seat retainer bridge 3 and remove.
  - with seat heating OE
  - Disconnect plug 2 for the seat heating.
- Remove the front seat and place it, upholstered side down, on a clean, dry surface.
Installing front seat

- with seat heating OE

Connect plug 1 of the seat heating.

Position the front seat with mounts 2 in rubber buffers 1 on left and right.

Lower the rear of the front seat and engage the seat in the latching mechanism.

Adjusting front-seat height

- Removing front seat (⇒ 97).

Push latch 1 forward and remove adjusting plate 2.

Turn the adjusting plate to position L for the lower seat height.
Turn the adjusting plate to position H for the higher seat height.

Insert the adjusting plate in the desired position into mounts 2 and then push it into latch 1.

Installing front seat (98).

Passenger seat

Removing rear seat

Switch off the ignition.

Installing front seat (97).

Remove the screws 1.

Slightly pull the passenger seat towards the front and lift it.

Disconnect the plug connection 1 of the seat heating and remove the passenger seat.

Place the seat, upholstered side down, on a clean surface.

Removing front seat (97).

Passenger seat

Operation
Install the rear seat
- with seat heating<sup>OE</sup>

1. Connect the plug connection 1 for the seat heating.

2. Place passenger seat on the mountings 1.

Stowage compartment
Operating the left storage compartment

1. Unlock and lock the lock 1 of the storage compartment using the ignition key.
2. To open the lid, press the unlocked lock barrel down.

**ATTENTION**
High temperatures in the storage compartments, particularly in summer
Damage to objects stowed away, particularly electronic devices,
such as mobile phones and MP3 players

- Consult the operating instructions of your electronic device and check for possible usage restrictions.
- In summer, do not place heat-sensitive objects in the storage compartments.

**Using right storage compartment**

- Unlock and lock the lock 1 of the storage compartment using the ignition key.
- To open the lid, push the unlocked lock barrel down.

**ATTENTION**

High temperatures in the storage compartments, particularly in summer

Damage to objects stowed away, particularly electronic devices, such as mobile phones and MP3 players

- Consult the operating instructions of your electronic device and check for possible usage restrictions.
- In summer, do not place heat-sensitive objects in the storage compartments.

**Central locking system Lock**

- with central locking system OE

**NOTICE**

Switch on the ignition and press button 1.

Only vehicles without Keyless Ride are shipped accompanied by a separate remote control for the central locking system and the alarm system.

- Alternatively: Press button 2 on the remote control or the radio-operated key.

The stowage compartment in the left side panel and the cases are locked.
- with audio system

> The stowage compartment in the right side panel is locked.

- with topcase

> The topcase is locked.

> These locks cannot subsequently be unlocked manually.

> The locked symbol appears on the display.

- with anti-theft alarm (DWA)

> The functions of the remote control for the anti-theft alarm are described in the corresponding section.

Unlocking

- with central locking system

Switch on the ignition and press button 1.

Alternatively: press button 2 on the remote control or radio-operated key.

The storage compartment in the left side panel and the cases are unlocked.

The storage compartment in the right side panel is unlocked.

- with topcase

> The topcase is unlocked.

Once a lock has been locked manually it subsequently has to be unlocked manually as well.

- with anti-theft alarm (DWA)

> The functions of the remote control for the anti-theft alarm are described in the corresponding section.

Emergency unlocking

- with central locking system

If the central locking system refuses to unlock, you can open the cases, topcase and stowage compartments manually. The procedure is as follows:

- Removing cases (⇒ 210).
- Open cases (⇒ 209).
First turn the key in the top-case lock 45° past the LOCK position, then turn it to the dot position and press in the lock barrel.

» The release lever pops open.

**Logging on the remote control**
- with central locking system **OE**
- with anti-theft alarm (DWA) **OE**
- without Keyless Ride **OE**

If you intend to replace a lost remote control or use an additional remote control, you must always log on all remote controls.

- Proceed as follows to log on the remote controls:
  - Switch on the ignition.

- Press button 2 on the remote control three times.
  » One sound signal.
  » Switch off the ignition within ten seconds.
  You can now log on the remote controls.
  » Complete the following steps for each remote control:

- Press and hold down buttons 1 and 2.
  » LED 3 flashes for approximately ten seconds.
  » When LED 3 stops flashing, release buttons 1 and 2.
  » LED 3 lights up.
  » Press button 1 or button 2.
  » One acoustic signal sounds, LED 3 goes out.
  Proceed as follows to complete logon:
  » Switch off the ignition.
  » Three sound signals.
  » Logon is also ended in the following situations:
- 4 remote control units have been logged on.
- No button pressed within approximately 30 seconds of logon on the first remote control.

**Synchronise the remote controls**
- with central locking system\(\text{OE}\)
- with anti-theft alarm (DWA)\(\text{OE}\)
- without Keyless Ride\(\text{OE}\)

If the central locking system stops responding to the signals from a remote control, the unit in question has to be synchronised. This can happen, for example, if the buttons on the remote control were pressed too frequently while the remote control was out of range of the anti-theft alarm.

- The procedure for synchronising the remote controls is as follows:
  - Switch on the ignition.
  - Press and hold down buttons 1 and 2 until LED 3 stops flashing.
  - LED 3 flashes for about ten seconds.
  - Release buttons 1 and 2.
  - LED 3 lights up.
  - Press button 1 or button 2.
  - LED 3 goes out.

**Replacing battery of remote control**
- with central locking system\(\text{OE}\)
- with anti-theft alarm (DWA)\(\text{OE}\)
- without Keyless Ride\(\text{OE}\)

If you press a button on the remote control and the LED does not show or lights up only briefly:
- Replace the battery of remote control.

Open battery-compartment cover 1.
- 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**

<table>
<thead>
<tr>
<th>For remote control of central locking</th>
<th>CR 1632</th>
</tr>
</thead>
</table>

- Press button 1 twice. LED 3 flashes for a few seconds.
- The remote control is again ready for use.

The LED on the remote control lights up; the remote control has to be synchronised.
Operation
Audio system

General operation .................. 108
Radio ............................... 115
External playback devices ........ 120
Audio playback ..................... 122
Bluetooth ........................... 123
General operation
Multifunction display

1 Text field
2 Audio source (⇒ 110)
3 Symbol for the audio source
4 Playback mode (depends on audio source)
5 Bluetooth status (⇒ 123)
6 Mute (MUTE) (⇒ 112)
7 Traffic programme function (⇒ 119)

Audio system
Storage compartment for audio system

1 Lock
   Use the right storage compartment (☞ 101).

2 Connection for USB connector and 3.5 mm jack plug (☞ 120)

3 Storage compartment for audio devices and mobile phone
Switching on audio system

- Switch on the ignition.
  - If the audio system was on when the ignition was switched off, it automatically switches on again.

If the audio system does not switch on automatically: press the **ON** button to switch on the audio system.

- The audio system will be in the most recently used operating mode.

Switching off audio system

- Switch off the ignition or with the ignition on, press the **ON** button and hold it down until the audio system switches off.

Select audio source

- Press **SRC** button to select the audio source.
  - The following audio sources are possible; the appropriate symbol appears on the display:
    - Radio
    - MP3 mass storage device (USB) or Apple iPod (IPOD)
    - Other audio devices (AUX)
Speakers and Bluetooth

Audio playback is via either the on-board speakers or a Bluetooth-paired output device. If the Bluetooth function is not available in a particular country, only audio playback via the speakers is available.

Switching the speakers off causes automatic activation of the Bluetooth function. Switch on the speakers to switch off the Bluetooth function.

If audio playback is via a Bluetooth-compatible output device, volume has to be adjusted at the device itself. The Multi-Controller cannot be used for this purpose. Exception: if a BMW Motorrad communication system with Bluetooth 2.0 standard is connected, the Multi-Controller can be used to adjust volume (☞ 127).

Adjusting volume

- Turn Multi-Controller 1 in direction A to increase volume.
- Turn Multi-Controller 1 in direction B to reduce volume.

Scale 2 appears on the display while the volume is being adjusted. The scale disappears automatically once no further changes are made to the volume setting.

If the display shows Speaker OFF, the speakers are switched off and Bluetooth is switched on.
Mute (MUTE)

Press the ON button.

> All sound output is switched off.

The speaker symbol appears on the display.

> If one or two BMW Motorrad communication systems with Bluetooth standard 2.0 are connected, the helmets are switched from music playback to intercom mode.

Press the ON button again to cancel muting and the intercom mode.

Alternatively: Turn Multi-Controller 1 in direction A to cancel muting.

> If the system is paired to a BMW Motorrad communication system with Bluetooth standard 2.0, the mute function can be cancelled only by pressing the ON button.

Cancelling traffic announcement

While a traffic report is in progress, press the ON button to interrupt the traffic report and return to the audio source you were listening to beforehand.

Volume boost for traffic announcements

Volume for traffic announcements is boosted above the current level. This boost can be adjusted by increasing volume to the desired level during a traffic announcement. The audio sys-
tem saves the increase of the current volume and uses it for all subsequent traffic announcements.

Switching speakers on or off
- Call up the Settings menu and select Audio - Loudspeaker.
- The following settings are available:
  - On: Speakers on.
  - Off: Speakers off.
- If the speakers are switched off the Bluetooth function is automatically switched on and vice versa.

Adjusting sound settings
- Call up the Settings menu and select Audio - Sound.

- The following settings are available:
  - Treble: Reduce (-1...-6) or increase (+1...+6) treble.
  - Bass: Reduce (-1...-6) or increase (+1...+6) bass.
  - S-VOL: Switch off speed-dependent volume control (OFF) or select the level (1...3).
  - Loudness: Switch sound curve on (On) or off (Off).
  - AUX: Set input signal level (1...6).
- Select the menu item you want, select the setting of your choice and exit the menu.

Volume and speed
The audio system can automatically adapt the volume to the driving speed. The increase in volume in dependence on the speed can be set to three levels. Level 3 corresponds to the largest increase. Automatic volume adjustment does not work for playback via Bluetooth-connected communication systems.

Input signal level
The volume can be set as described on page (p. 111). In the case of audio devices that can only be connected to the system via the jack, the volume that can be set depends on:
the output power of the audio device
the input-signal level you select
the volume to which the audio device is set.

You should set the input-signal level and adjust the volume of the audio device in such a way that the volume range available for adjustment corresponds to that of the other operating modes.
Radio

Selecting frequency band

- Press and hold down the MODE button until the frequency band changes.
- Each time you press the button the system toggles between frequency-modulated very high frequency (FM), medium wave (MW) and long wave (LW) (in some countries only AM and FM are available).

Saving stations

The BMW Motorrad audio system has 24 station memory slots for each waveband.

- Twelve system memory slots:
  The Autostore function has to be used to assign the twelve stations with the strongest signals to these slots.
- Twelve personal memory slots:
  The rider can manually assign a station to each of these memory slots.

Finding and saving stations automatically

- Select the frequency band (115).

NOTICE

After the audio system has been switched on, the tuner needs about one minute to find all the receivable stations. Allow this time to expire before starting an automatic search, as otherwise stations not found before your search starts cannot be taken into account.

- The twelve stations with the strongest signal will be found and saved. Then the station
Station search, manual
- Select the frequency band (115).
  - Repeatedly press the MODE button until MAN appears in the top line of the display.

Station save, manual
- Select a station or frequency from the frequency band.
  - Press the MEM button to save the selected frequency/station.
    - Memory flashes on the display.

NOTICE
It is also possible to select stations from the system memory or the personal memory and then move them to a different slot in the personal memory.
Move Multi-Controller 1 in direction A or B to select the memory slot you want in the personal list of presets.

- The current assignment of this memory slot flashes on the display.

Press the MEM button again to save the station / frequency to the selected memory slot.
- The station previously saved there will be deleted.

Calling up stations saved in memory

- Select the frequency band (⇒ 115).

To select a station from the system memory, press the MODE button repeatedly until AS is displayed.
Position 1 shows AS; the active memory slot is shown at position 2.

- To select a station from personal memory, repeatedly press the MODE button until position 1 shows MEM.

- Move Multi-Controller 1 in direction A or B to select the memory slot.

Selecting reception settings

- Call up the Settings menu and select Audio - Tuner.

The following settings are available:

- RDS: Switch RDS on or off
- Traffic reports: Switch traffic reports on or off (not available in all countries)
- REG: Switch regional transmitters on or off (not available in all countries)

- Select the menu item you want, select the setting of your choice and exit the menu.
Radio Data System (RDS)

Some stations broadcasting in the FM waveband transmit additional information, including programme names. The name of the station can only be displayed if the RDS function is on. If no station name is transmitted, waveband and frequency are shown in the display.

Traffic channel
If a station broadcasting on the FM waveband transmits traffic announcements, this is in many countries included in the RDS signals (119). If at least one station with traffic announcements is being received by the audio system, position 1 shows a TP symbol. The traffic channel station does not necessarily have to be the same as the station that is currently playing. You can switch on the traffic channel function only if RDS is active. If the traffic-program function is ON and at least one station with a traffic channel is receivable position 1 shows TP. If a traffic channel station is being played and the traffic channel function is on, any other operating mode is interrupted for the duration of the announcement. Exception: if communication systems are connected in communication mode, these will not be interrupted.

Regional broadcasts
In the FM band, stations can use several frequencies for their programming. These may vary from region to region. These alternative frequencies are contained in the RDS data, which enables the audio system to change the frequency of the station automatically according to where it is. Some stations use these different frequencies to broadcast different, region-specific programmes at different times of day. This could mean that the programme will change automatically if the region is changed, even if the rider has not changed the station.
If the rider does not want the programme to be changed, the regionalisation function can be switched off (REG).

External playback devices

Requirements

Audio devices (such as MP3 players) or suitable media storage devices (USB sticks) can be connected to the audio system by means of the connectors in the storage compartment. These connectors include:

- a 3.5 mm jack,
- a USB connection (supports USB 1.1 and USB 2).

The audio device must:

- have a compatible connector,
- be stowable inside the stowage compartment,
- be able to withstand vibrations arising from normal motorcycle use,
- be able to withstand the high temperatures occurring inside the stowage compartment in summer.

**ATTENTION**

Increased mechanical stress due to unsuitable audio devices

Component damage, no liability by BMW Motorrad

- Refer to the operating instructions of your audio device for any possible usage restrictions.

**ATTENTION**

High temperatures in the storage compartments

Damage to stored objects or devices

- Please refer to the operating instructions for the devices to see if there are any possible restrictions on use.

BMW Motorrad advises against using devices with hard discs as media storage devices, as vibrations may cause playback to skip and may damage the device.

The audio system provides a supply voltage via the USB plug, though which it is possible to charge mobile telephones and other such devices. Connecting several USB devices via a hub is not possible as the supply voltage is limited.

Connecting audio device

- Switch off the audio system (⇒ 110).
• Use USB connector 1 to connect the data memory to the audio system.
• Connect an Apple iPod with adapter cable to the audio system using USB connector 1 and jack plug 2.

**NOTICE**
You can obtain the correct adapter cable from your authorised BMW Motorrad retailer.
• Connect other audio devices to the audio system via jack plug 2 and switch on.

- Position the audio device in storage compartment 3.

**ATTENTION**
Improper routing of the access line
Damage to the seal
• Do not run the access line outside between the storage compartment and the cover.
• Close the lid of the compartment, making sure that neither the audio device nor the cable is trapped.
• Switch on the audio system (⇒ 110).
• Select audio source (⇒ 110).

**Audio source data memory**
The audio system first scans the media storage device for tracks encoded as MP3s. While the scan is taking place, **LOADING** is shown on the display. Subdirectories are also scanned. The track titles in the MP3 data (in the ID3-Tag) determine the alphabetical order of the playback list and the title displayed on the system. This may not necessarily be the same as the filename. Only characters from the ASCII character set (Windows 1252) can be displayed. Other character sets are not displayed or are displayed incorrectly.

Playlists can be created as a means of sorting tracks. The tracks in a playlist are played in the order in which they are listed. The USB stick must support the Mass Storage Format, can have only one partition and must be either FAT 16 or FAT 32 formatted.
An MP3 player connected to the audio system via the USB port must also support the Mass Storage Format.
Audio system

Audio source iPod

The audio system will first try to detect any tracks saved on an iPod. While the scan is taking place, **LOADING** is shown on the display. The track titles from the iPod are used as titles for alphabetical sorting and display.

The playlists from the iPod will also be found in addition to the individual tracks. Tracks are played back in the sequence required by the iPod.

The iPod receives power via the adapter cable.

iPhone

An iPhone can be used as an audio source in the same way as an iPod. The telephone functions are deactivated while the iPhone is being used as a playback source; a message to this effect might appear in the display of the iPhone.

Sound quality

BMW Motorrad recommends the following settings in the system settings of the iPod/iPhone to achieve the best possible sound quality:

- Volume adaptation: ON
- Equaliser: OFF

Other playback devices

The audio system outputs the track that is currently being played by the playback device via the speakers. The playback device cannot be controlled by the system if it is only connected via the jack.

Audio playback

Selecting playback mode

- Select audio source USB or iPod.

The possible playback modes are displayed:

- **Titles**: All music tracks are listed in alphabetical order.
- **Directory**: All directories containing music tracks are listed in alphabetical order. When you select a directory the titles of the tracks and subdirectories it contains are listed.
- **Playlists**: All playlists are listed in alphabetical order. When you select a playlist the titles of the tracks it contains are listed.
- **Artists**: All the artists saved in the MP3 data are listed in alphabetical order. When you select an artist the titles of all that artist's tracks are listed.
- **Albums**: All the albums saved in the MP3 data are listed in alphabetical order. When you select an album the titles of all the tracks on that album are listed.
- **Genres**: All the music genres saved in the MP3 data are listed in alphabetical order. When you select a genre the titles of all the tracks in that genre are listed.
- **Unknown**: Appears for information not saved in the MP3 data.

*Once you have selected the playback mode: select the title of the track with which you want playback to start.*

**Random playback**

- You can activate random playback sequencing for each playback mode. To do so, press and hold down the MODE button.

**Bluetooth**

**General**

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.

Note on health compatibility: The body of scientific data available at this time gives no grounds for assuming that Bluetooth can have negative effects on human health. The BMW Motorrad audio system transmits at a maximum of 10 mW; a mobile phone by contrast can have a transmit-power rating as high as 2 W. The ISM frequency band used by Bluetooth is reserved for the world-wide use of devices in the industrial, scientific and medical sectors and given the low transmit-power ratings, Bluetooth devices are considered safe in terms of potential health risks.

Playback via helmet
The audio system can be connected to the Bluetooth-compatible BMW Motorrad communication systems. Playback in this case is not through the speakers, but by wireless transmission through the headphones in the helmet.

Switching Bluetooth function on and off
- To switch on the Bluetooth function: switch off the speakers.
- To switch off the Bluetooth function: switch on the speakers.
- Switch the speakers on or off (113).

Bluetooth symbol 1 appears on the display.
A dot to the left of the Bluetooth symbol indicates that the audio system is connected to the rider’s helmet (Helmet1). A dot to the right of the Bluetooth symbol indicates a connection to the passenger’s helmet (Helmet2). A flashing dot indicates that the audio system is searching for the corresponding helmet.

» If pairing information for a communication system is saved in the audio system’s memory, the audio system automatically searches for this system. If connection to a BMW Motorrad communication system is not established despite the fact that the system is switched on:
  • Briefly press the on/off button of the communication system twice in quick succession.

**Pairing**

Two Bluetooth devices have to recognise each other before they can communicate. This process of mutual recognition is known as pairing. When two devices have paired they remember each other, so the pairing process is conducted only once, on initial contact.

Two BMW communication systems with Bluetooth standard 2.0 are required if both rider’s helmet and passenger’s helmet are to be paired to the audio system. If either of the two BMW systems is using Bluetooth standard 1.2, only one helmet can be paired. Refer to the operating instructions of your communication system for information on Bluetooth standards.

During the pairing process, the audio system 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 device’s Bluetooth function must be active
- 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 information already saved in the BMW Motorrad communication system has to be deleted beforehand. Always start by pairing with the audio system first.

**Pairing**
- Switch the Bluetooth function on and the loudspeakers off.
- Switch off all other Bluetooth enabled devices (e.g. mobile telephones) within ten metres (or at least their Bluetooth function).
- Activate helmet’s Bluetooth function and visibility (see helmet operating instructions).

**NOTICE**
It can take some time for a Bluetooth device to be detected. It is always best to activate the search function as soon as possible after activating visibility, so that the searching device will have as long as possible to find the visible device.

- Call up the Settings menu and select Audio - Register BT...
- Select Helmet1 to establish the connection to the communication system in the rider’s helmet.
- Select Helmet2 to establish the connection to the communication system in the passenger’s helmet, once the rider’s helmet has been paired (possible only with two BMW Motorrad communication systems with Bluetooth standard 2.0).
- Select Log off all. to delete the pairing information saved in memory.
- If you selected Helmet1 or Helmet2, the audio system now searches for visible Bluetooth-compatible devices; the word Search... appears on the display. There is no music playback while the search is in progress. All the devices found in the search are then listed.

BMW Motorrad communication systems are shown with BMW_HE...
Successful: Connection established, playback via speakers in helmet.

Not possible: You have attempted to pair the passenger's helmet before pairing the rider's helmet or there is no BMW Motorrad communication system installed in the rider's helmet.

Failed: Connection cannot be established. If no connection could be established:

- If you want to connect two communication systems: step through the pairing process for the rider's helmet first, then pair the passenger's helmet.
- Check that both communication systems support Bluetooth standard 2.0 or higher.
- If there are active Bluetooth devices in the vicinity, switch them off.

Additional functions

- Delete the pairing information saved in the audio system.
- Delete the devices saved in the communication system.
- Run the pairing procedure again.

Rider's helmet with BMW Motorrad communication system with Bluetooth standard 2.0

- The volume of the helmet speakers can be adjusted directly using Multi-Controller 1.
- Any change in helmet volume is shown on the display.

The volume for helmet 2 cannot be adjusted by means of the Multi-Controller.

Rider's and passenger's helmets with BMW Motorrad communication system with Bluetooth standard 2.0

- If the ON button (MUTE function) is pressed, playback is interrupted and the intercom function is switched on in both helmets. Pressing the ON button again terminates the...
intercom function and playback resumes (the changeover can take approximately ten seconds).
Adjustment

Mirrors .............................. 130
Headlight ........................... 130
Windscreen .......................... 130
Instrument panel ..................... 131
Clutch ................................. 132
Gearshift lever ....................... 133
Brakes ................................ 134
Spring preload ......................... 135
Damping ............................... 137
Mirrors
Adjusting mirrors
• Pivot the mirror to the correct position by pressing gently at the edge of the glass.

Headlight
Headlight beam throw and spring setting
The headlight beam throw generally remains constant due to adjustment of the spring setting. Adjustment of the spring setting may only be inadequate if the load 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
Requirement
If, with a high load, the adjustment of the spring setting is no longer sufficient not to dazzle oncoming traffic:

• The headlight beam throw is adjusted via a bell crank.
  – A Position with a light load (only rider)
  – B Position with rider with load
  – C Position with high load (with two-up mode)

Windscreen
Adjusting windscreen
• Switch on the ignition.
  » As you ride off, the windscreen automatically moves to its last position before the ignition was switched off.
Press top section of button 1 to raise the windscreen.
Press bottom section of button 1 to lower the windscreen.
Switch off the ignition.

The windscreen automatically moves to the bottom end position.

If the windscreen encounters resistance before it reaches its end position, the anti-trap mechanism goes active. The windscreen stops and the mechanism raises it slightly. After a few seconds the windscreen once again attempts to move to the bottom end position.

Make sure that nothing obstructs the windscreen's freedom of movement.

The windscreen does not automatically move to the bottom end position.
Switch on the ignition.
Press button 1 to move the windscreen to its top and bottom end positions.
Switch off the ignition.

The windscreen's range of adjustment is calibrated.

Windscreen does not react when button 1 is pressed.
Consult a specialist workshop, preferably an authorised BMW Motorrad retailer.

Correct anti-trap mechanism functionality cannot be guaranteed if a windscreen has been installed that has not been approved by BMW Motorrad.

In this case: Ensure the clearance of the windscreen prior to switching off the ignition.

Instrument panel

Adjusting instrument panel

NOTICE

Do not attempt to adjust the position of the instrument panel unless the vehicle is at a standstill.

Press instrument panel 1 firmly at top or bottom edge, as applicable, to move it to the de-
sired position. Be sure to apply pressure midway along the edge in order to ensure that movement is the same at both sides.

**Clutch**

**Adjust the clutch lever**

![Adjustment](image)

- Turn adjuster knob 1 to the desired position.

**WARNING**

Adjusting the clutch lever while riding

Risk of accident

- Adjust the clutch lever only when the motorcycle is at a standstill.

**NOTICE**

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

- Four settings are possible:
  - Position 1: smallest distance between handlebar grip and clutch lever
  - Position 4: largest distance between handlebar grip and clutch lever

- With Option 719 Milled Part Set Classic OE
- With Option 719 Milled Part Set Storm OE
- With HP milled part package OE

- Turn the adjustment lever 1 into the desired position.

**Adjustment options:**

- From position A: narrowest span between handlebar grip and clutch lever,
- In 5 steps in direction of position B for enlarging the dis-
Distance between handlebar grip and clutch lever.

**Gearshift lever**
- with Option 719 Milled Part Set Classic\OE
  or
- with Option 719 Milled Part Set Storm\OE
  or
- with HP milled part package\OE

Adjusting gearshift lever peg

- Foot distance and height to peg 2 can be adjusted by turning to different positions.
- Remove the bolt 1.

1. Clean the threads.
2. Turn the peg 2 in the desired position.
3. Fit new bolt 1.

Peg to gearshift lever

<table>
<thead>
<tr>
<th>Thread-locking compound: micro-encapsulated</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 Nm</td>
</tr>
</tbody>
</table>
Brakes
Adjust the handbrake lever

**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.

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

- Four settings are possible:
  - Position 1: Smallest distance between handlebar grip and brake lever.
  - Position 4: Largest distance between handlebar grip and brake lever.

- Turn adjuster knob 1 to the desired position.

- Turn the adjustment lever 1 into the desired position.

- Adjustment options:
  - From position A: narrowest span between handlebar grip and handbrake lever.
  - In 5 steps in direction of position B for enlarging the dis-
distance between handlebar grip and handbrake lever.<br><br>Adjust footbrake lever peg<br>– with Option 719 Milled Part Set Classic OE or<br>– with Option 719 Milled Part Set Storm OE or<br>– with HP milled part package OE<br><br>Foot distance and height to peg 1 can be adjusted by turning through 180° and installation in position A or B.<br><br>- Remove the bolt 1.<br>- Clean the threads.<br>- Install peg 2 in desired position A or B.<br>- Turn the peg 2 in the desired position.<br>- Fit new bolt 1.<br><br>Thread-locking compound: micro-encapsulated 10 Nm

Spring preload Adjustment<br>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<br><br>WARNING Adjusting spring preload while riding. Risk of accident<br>- Do not attempt to adjust spring preload unless the motorcycle is at a standstill.
- Make sure the ground is level and firm and place the motorcycle on its stand.
• Ease out bottom of cover 1 at position 2.
• In order not to damage the cover or the mounts, disengage the cover at positions 3.

**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 tool 2 (on-board toolkit) to turn knob 1 clockwise.
• If you want to reduce spring preload, use tool 2 to turn knob 1 counter-clockwise.

<table>
<thead>
<tr>
<th><strong>Basic setting of spring preload, rear</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>– without Dynamic ESA (^{OE})</td>
</tr>
<tr>
<td>Turn the adjuster knob as far as it will go counter-clockwise. (One-up without luggage)</td>
</tr>
<tr>
<td>Turn the adjuster knob as far as it will go counter-clockwise, then back it off 10 turns in the clockwise direction. (One-up with luggage)</td>
</tr>
<tr>
<td>Turn the adjuster knob as far as it will go clockwise. (Two-up with luggage)</td>
</tr>
</tbody>
</table>
Seat the cover in mount 2 and press it into mounts 1.

**Damping Adjustment**

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

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

**Adjusting the damping characteristic for rear wheel**

- Place the motorcycle on its stand on firm, even ground.
- Set the damping from the left-hand vehicle side.

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

**NOTICE**

BMW Motorrad recommends selecting one-up operation with luggage for special vehicles.

---

<table>
<thead>
<tr>
<th>Description</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic setting of rear-suspension damping characteristic</td>
<td></td>
</tr>
<tr>
<td>- without Dynamic ESA&lt;sup&gt;OE&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>Turn the adjuster knob as far as it will go in the clockwise direction, then back it off 6 clicks in the counter-clockwise direction. (One-up without luggage)</td>
<td></td>
</tr>
<tr>
<td>Turn the adjuster knob as far as it will go in the clockwise direction, then back it off 4 clicks in the counter-clockwise direction. (One-up with luggage)</td>
<td></td>
</tr>
</tbody>
</table>
Basic setting of rear-suspension damping characteristic

Turn the adjuster knob as far as it will go in the clockwise direction, then back it off 2 clicks in the counter-clockwise direction. (Two-up with luggage)
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Riding</td>
<td></td>
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<tr>
<td>Safety information</td>
<td>140</td>
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<tr>
<td>Regular check</td>
<td>142</td>
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<tr>
<td>Starting</td>
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<td>Running in</td>
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<td>Parking your motorcycle</td>
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<td>Refuelling</td>
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<tr>
<td>Securing motorcycle for transport</td>
<td>155</td>
</tr>
</tbody>
</table>
Rider’s equipment

Do not ride without the correct clothing! Always wear:
- Helmet
- Suit
- Gloves
- Boots

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

Use of non-colour-fast materials (e.g. blue jeans) on the seat

Discolouration on the seat
- Avoid contact with non-colour-fast materials.

Loading

**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.
- Adapt spring setting and damping adjustment to the total weight.
- Ensure that the case volumes on the left and right are equal.
- Make sure that the weight is uniformly distributed between right and left.
- Pack heavy items at the bottom and toward the inboard side.

Note the maximum permissible payload and maximum permissible speed (see also the section entitled “Accessories”).
- with tank bag OA
  - Note the maximum permissible payload of the tank bag.

<table>
<thead>
<tr>
<th>Payload of tank rucksack OA</th>
</tr>
</thead>
<tbody>
<tr>
<td>max 5 kg&lt;3</td>
</tr>
</tbody>
</table>

Speed

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

Regular check

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

Always before riding off
- Check operation of the brake system.
- Check operation of the lights and signalling equipment.
- Checking clutch function (p. 182).
- Checking tyre tread depth (p. 185).
- Check the tyre pressures (p. 184).
- Check that cases and luggage are securely held in place.

Every 3rd refuelling stop
- Check the engine oil level (p. 176).
- Checking front brake pad thickness (p. 178).
- Checking rear brake pad thickness (p. 179).
- Check the brake-fluid level, front brakes (p. 180).
- Check the brake-fluid level, rear brakes (p. 181).
- Check coolant level (p. 182).

Starting

Start engine
- Switch on the ignition.
Pre-Ride-Check is performed. (143)
ABS self-diagnosis is in progress. (144)
ASC self-diagnosis is performed. (145)
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 twistgrip slightly to open the throttle.

**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.

- Needles of the instruments move from the start to the end point once.

**Phase 1**

⚠ lights up yellow.

**Phase 2**

⚠ lights up red.

**Phase 3**

» General warning light goes out and display changes to operating information.

Pre-Ride-Check

The instrument cluster runs a test of the general warning light with the Pre-Ride-Check when the ignition is switched on.

**Phase 1**

⚠ lights up yellow.

- Needles of the instruments move from the start to the end point once.

**Phase 2**

⚠ lights up red.

**Phase 3**

» General warning light goes out and display changes to operating information.
The malfunction indicator lamp only goes out after 15 seconds.

If the general warning light is not shown:

**WARNING**

Faulty "General" warning light.

No indication of malfunctions.

- Check that the 'General' warning light comes on, and that it shows red and yellow.
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

**ABS self-diagnosis**

BMW Motorrad Integral 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. Flashes.

### Phase 2
- Test of the wheel-speed sensors as the vehicle pulls away from rest. 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 neither the ABS function nor the integral braking function is available.
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad dealer.
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.

slow-flashes.

Phase 2
- Test of the diagnosis-compatible system components while the motorcycle is on the move.

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 dealer.

DTC self-diagnosis
- with riding modes Pro ÖE
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 diagnosable system components with the vehicle at a standstill.

slow-flashes.

Phase 2
- Test of the diagnosis-compatible system components while the motorcycle is on the move.

slow-flashes.
DTC self-diagnosis completed
> The DTC indicator and warning light goes out.

- 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 dealer.

Running in

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

Running-in speeds

<table>
<thead>
<tr>
<th>Running-in speeds</th>
<th>No full load (Odometer reading 0...1000 km)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;5000 min⁻¹ (Odometer reading 0...1000 km)</td>
<td></td>
</tr>
</tbody>
</table>

Running-in check

<table>
<thead>
<tr>
<th>Running-in check</th>
</tr>
</thead>
<tbody>
<tr>
<td>500...1200 km</td>
</tr>
</tbody>
</table>

Brake pads

New brake pads have to be bed down before they can achieve their optimum friction levels. You can compensate for this initial reduction in braking efficiency by exerting greater pressure on the levers.

New brake pads

Longer stopping distance, risk of accident
- Apply the brakes in good time.

WARNING
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\textsuperscript{OE}

**Shift assistant Pro**
**Requirement**
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.

**NOTICE**
See the section entitled "Engineering details" for more information on the Pro shift assistant.

**NOTICE**
Whenever the Pro shift assistant shifts down, cruise control is automatically disengaged for safety reasons.

• You select the gear in the usual way by means of the foot-operated shift lever.
• 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 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.
- Gearshift lever not in its initial position.
- Upshifts with the throttle valve closed (coasting overrun) and when decelerating.
- When shifting down with the throttle valve open or when accelerating.
- After a gearshift, the shift lever has to be fully released before another gearshift with the shift assistant can take place.

Brakes

How can stopping distance be minimised?

Each time the brakes are applied, a load distribution shift takes place with the load shifting forward from the rear to the front wheel. The sharper the motorcycle decelerates, the more load is shifted to the front wheel. The higher the wheel load, the more braking force can be transmitted without the wheel locking.

To optimise stopping distance, apply the front brakes rapidly and keep on increasing the force you apply to the brake lever. This makes the best possible use of the dynamic increase in load at the front wheel. Remember to pull the clutch at the same time. In the extreme braking situations that are trained so frequently, braking force is applied as rapidly as possible and with the rider’s full force applied to the brake levers; under these circumstances, the dynamic shift in load distribution cannot keep pace with the increase in deceleration and the tyres cannot transmit the full braking force to the surface of the road.

BMW Motorrad Integral ABS prevents the front wheel from locking up.

Hazard braking

If you brake sharply from a speed in excess of 50 km/h, the brake light flashes rapidly as an additional warning for road users behind you.

The hazard warning lights system switches on if you brake to below 15 km/h in this process.

The hazard warning lights system automatically switches off from a speed of 20 km/h.
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

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.
- with riding modes Pro

The Dynamic Brake Control supporting function is also available.

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 motorcycling. It is still possible for these limits to be overshot due to misjudgement or rider error. In extreme cases this can result in a crash.

Use on public roads
ABS Pro 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.

with riding modes Pro
In panic braking, Dynamic Brake Control increases the braking effect and intervenes if the throttle grip is accidentally turned during braking.

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.
• Turn the handlebars all the way to left.
• On a gradient, the motorcycle should always face uphill; select 1st gear.

Centre stand
• Switch off the 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 retracts due to severe movements
Risk of damage to parts if vehicle topples
- Do not lean or sit on the vehicle with the centre stand extended.
- Extend the centre stand and lift the motorcycle on to the stand.
- On a gradient, the motorcycle should always face uphill; select 1st gear.

**Refuelling**

**Fuel grade Requirement**
To ensure optimal fuel consumption, fuel should be sulphur-free or as low-sulphur as possible.

**Engine operation with leaded fuel**
- Damage to catalytic converter
- Do not attempt to run the vehicle on leaded fuel or fuel with metallic additives (e.g. manganese or iron).
- Observe the maximum ethanol content of the fuel.

**Recommended fuel grade**
- Super unleaded (maximum 15% ethanol, E15)
  - E95 ROZ/RON
  - 95 AKI

**Alternative fuel grade**
- Regular unleaded (power- and consumption-related restrictions.)
  - (maximum 15% ethanol, E10/E15)
  - 91 ROZ/RON
  - 87 AKI

» Pay attention to the following symbols in the fuel filler cap and on the fuel pump:
- E8
- E10

» After refuelling with fuels of poor-quality, sporadic knocking noises may be perceptible.
Refuelling

**WARNING**
Fuel is highly flammable
Risk of fire and explosion
- Do not smoke. Never bring a naked flame near the fuel tank.

**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 the protective cap 2.
- Unlock the fuel tank cap by turning the ignition key 1 clockwise and open up.
- 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.

**Usable fuel capacity**
approx. 25 l

**Reserve fuel**
approx. 4 l

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

**Refuelling**
- with Keyless Ride OE

**Requirement**
The steering lock is disengaged.

---

**WARNING**

**Fuel is highly flammable**
Risk of fire and explosion
- Do not smoke. Never bring
a naked flame near the fuel
tank.

**ATTENTION**

**Wetting of plastic surfaces by fuel**
Damage to the surfaces (surfaces
become unsightly or dull)
- Clean plastic surfaces immedi-
ately after contact with fuel.
- Make sure the ground is level
and firm and place the motor-
cycle on its centre stand.
- with Keyless Ride OE
- Switching off ignition (65).

**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
the fuel filler cap**
2 min

- There are **two variant ways**
of opening the fuel filler cap:
  - Within the waiting time.
  - After the waiting time has ex-
pired.

**Version 1**
- with Keyless Ride OE

**Requirement**
Within the waiting time
Slowly pull tab 1 on the fuel filler cap up.
- Fuel filler cap unlocks.
- Fully open the fuel filler cap.

**Version 2**
- with Keyless Ride ÖE

**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.

**WARNING**
Escape of fuel due to heat-induced expansion if fuel tank is overfilled
Risk of falling
- Do not overfill the fuel tank.
- 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.

** Usable fuel capacity approx. 25 l **
Reserve fuel
approx. 4 l

- Press down firmly on the filler cap of the fuel tank.
- The fuel filler cap engages with an audible click.
- The fuel filler cap locks automatically when the waiting time expires.
- The engaged fuel filler cap locks immediately when you secure the steering lock or switch on the ignition.

Securing motorcycle for transportation
- Make sure that all components that might come into contact with straps used to secure the motorcycle are adequately protected against scratching. Use adhesive tape or soft cloths, for example, for this purpose.

ATTENTION
Vehicle topples to side when being lifted on to stand
Risk of damage to parts if vehicle topples
- Secure the vehicle to prevent it toppling, preferably with the assistance of a second person.
- Push the motorcycle on to the transportation flat and hold it in position: do not place it on the side stand or centre stand.

ATTENTION
Trapping of components
Component damage
- Do not trap components such as brake lines or cable legs.
- Pass the straps on left and right through the fork bridge and strap the motorcycle down.
Riding

- At the rear, secure the straps to the holders for the passenger footrests on both sides and tighten the straps.
- Tension all the straps uniformly to hold the vehicle securely.
Engineering details

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General instructions
To find out more about engineering go to:
bmw-motorrad.com/technology

Antilock Brake System (ABS)
Partially integral brakes
Your motorcycle is equipped with partially integral brakes. Both front and rear brakes are applied when you pull the handbrake lever. The footbrake lever acts only on the rear brake. When actively intervening in the braking process, BMW Motorrad Integral ABS adapts braking-force distribution between front and rear brakes to suit the load on the motorcycle ABS.

ATTENTION
Attempted burn-out despite Integral braking function
Damage to rear brake and clutch
• Do not burn out tyres.

How does Integral ABS work?
The amount of braking force that can be transferred to the road depends on factors that include the coefficient of friction of the road surface. Loose stones, ice and snow or a wet road all have much lower coefficients of friction than a clean and dry asphalt surface. The lower the coefficient of friction, the longer the braking distance.

If the rider increases braking pressure to the extent that braking force exceeds the maximum transferable limit, the wheels start to lock and the vehicle loses its directional stability; a fall is imminent. Before this situation can occur, ABS intervenes and adapts braking pressure to the maximum transferable braking force. The wheels continue to turn and the driving stability is retained irrespective of the road condition.

What are the effects of surface irregularities?
Humps and surface irregularities can cause the wheels to lose contact temporarily with the road surface; if this happens the braking force that can be transmitted to the road can drop to zero. If the brakes are applied under these circumstances the ABS has to reduce braking force to ensure that directional stability is maintained when the wheels regain contact with the road surface. At this instant the BMW Motorrad Integral ABS must assume an extremely low
coefficient of friction, so that the wheels will continue to rotate under all imaginable circumstances, because this is the precondition for ensuring directional stability. As soon as is registers the actual circumstances, the system reacts instantly and adjusts braking force accordingly to achieve optimum braking.

What feedback does the rider receive from the Integral ABS?
If the ABS has to reduce braking force on account of the circumstances described above, vibration is perceptible through the handbrake lever. When the handbrake lever is pulled, brake pressure is also built up at the rear wheel by the integral function. If the brake pedal is depressed after the handbrake lever is pulled, the brake pressure built up beforehand is perceptible as counter-pressure sooner than is the case when the brake pedal is depressed either before or at the same time as the brake lever is pulled.

Rear wheel lift
Under very severe and sudden deceleration, however, under certain circumstances it is possible that the BMW Motorrad Integral ABS will be unable to prevent the rear wheel from lifting clear of the ground. If this happens the outcome can be a highsiding situation in which the motorcycle can flip over.

WARNING
Rear wheel lift due to severe braking
Risk of falling
- When you brake sharply, bear in mind that ABS control cannot always be relied on to prevent the rear wheel from lifting clear of the ground.

What is the design baseline for Integral ABS?
Within the limits imposed by physics, the BMW Motorrad ABS ensures directional stability on any surface. At speeds above 4 km/h, within the limits imposed by physics the BMW Motorrad ABS can ensure directional stability on any surface. Limitations inherent to the design principle mean that at lower speeds the BMW Motorrad ABS cannot provide optimum assistance on all surfaces.

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:
- Heating up with the motorcycle on the centre stand or an auxiliary stand, engine idling or with a gear engaged.
- Rear wheel locked by the engine brake for a lengthy period, for example while descending on a loose or slippery surface.

If a fault message is issued on account of exceptional riding conditions, you can reactivate the ABS function by switching the ignition off and on again.

What significance devolves on regular maintenance?

WARNING
Brake system not regularly serviced.
Risk of accident
- In order to ensure that the ABS is always maintained in optimum condition, it is essential for you to comply strictly with the specified inspection intervals.

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

WARNING
Braking when cornering
Risk of accident despite ABS
- Invariably, the rider bears responsibility for assessing road and traffic conditions and adopting his or her style of riding accordingly.
- Do not take risks that would negate the additional margin of safety offered by this system.
Evolution of ABS to ABS Pro
Until now, the BMW Motorrad ABS helped ensure a very high degree of safety for braking with the motorcycle upright and travelling in a straight line. Now ABS Pro offers enhanced safety for braking in corners as well. ABS Pro prevents the wheels from locking even under sharp braking. ABS Pro reduces abrupt changes in steering force, particularly in panic-braking situations, counteracting the vehicle’s otherwise natural but undesirable tendency to straighten up.

ABS intervention
Technically speaking, depending on the riding situation ABS Pro adapts ABS intervention to the motorcycle’s bank angle. Signals for rate of roll and rate of yaw and lateral acceleration are used to calculate bank angle. As the motorcycle is heeled over more and more as it banks into a corner, an increasingly strict limit is imposed on the brake-pressure gradient for the start of brake application. This slows the build-up of brake pressure to a corresponding degree. Additionally, pressure modulation is more uniform across the range of ABS intervention.

Advantages for the rider
The advantages of ABS Pro for the rider are sensitive response and high braking and directional stability combined with best-case deceleration of the motorcycle, even when cornering.

Traction control (ASC/DTC)
How does ASC/DTC work?
BMWMotorrad ASC/DTC compares the wheel speeds at the front and 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 control intervenes and adapts the engine torque accordingly.

What is the design baseline for ASC/DTC?
BMW Motorrad ASC/DTC is designed as an assistant system for the rider and for use on public roads. The extent to which the rider affects ASC/DTC control can be considerable (weight shifts when cornering, items of luggage loose on the motor-
cycle), 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. The BMW Motorrad ASC/DTC can be deactivated in these cases.

**WARNING**

**Risky riding**

Risk of accident despite ASC/DTC

- 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.

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/DTC function is deactivated for safety reasons and an ASC/DTC fault message is issued. Self-diagnosis has to complete before fault messages can be issued.

The BMW Motorrad ASC/DTC can issue a fault message 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/DTC deactivated.
- Rear wheel rotating with the vehicle held stationary by applying the front brake (Burn Out).
- Heating up with the motorcycle on the centre stand or an auxiliary stand, engine idling or with a gear engaged.

The ASC/DTC is reactivated by switching the ignition off and on again and then riding at a minimum speed.

**Minimum speed for activation of ASC/DTC**

min 5 km/h
If the front wheel is lifted in the RAIN and ROAD riding modes, the DTC reduces the engine torque and quickly places the front wheel on the ground again. However, slight wheelies which are supported by the DTC are permitted in DYNAMIC mode. 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/DTC is unable to control a situation of this nature.

Electronic Suspension Adjustment (D-ESA) – with Dynamic ESA OE

Riding position equaliser
The electronic chassis and suspension setting Dynamic ESA is able to adjust your motorcycle automatically to the load. If the spring setting is set to AUTO, the rider does not have to change the load setting. When driving off and when riding, the system monitors the suspension at the rear wheel and corrects the spring setting in order to set the correct riding position. The damping is also adjusted automatically to the load. Via ride height sensors, Dynamic ESA detects the movements in the chassis and suspension and responds by adjusting the EDC valves. The chassis and suspension will thus be adapted to the characteristics of the terrain.

Dynamic ESA calibrates itself at regular intervals to ensure the system functions correctly.

Possible settings
Damping modes
- ROAD: Damping for comfortable on-road mode
- DYNA: Damping for dynamic on-road mode

Load settings
- AUTO: Active riding position equaliser with automatic adjustment of the spring setting and damping
- MIN: Minimum spring setting
- MAX: Maximum spring setting
- The rider can select the MIN and MAX spring settings, but cannot change them. The riding position equaliser is inactive when set to MIN and MAX.
Riding mode

In order to adapt the motorcycle to weather conditions, road conditions and the rider’s riding style, there is a choice of three riding modes:

- RAIN
- ROAD
- with riding modes Pro\textsuperscript{OE}
- DYNAMIC

Each of these modes produces perceptible differences in the way the motorcycle behaves. ASC/DTC can be switched off in each mode; the following explanations always relate to the switched-on system. The mode last selected is automatically reactivated after the ignition has been switched off and then on again.

Broadly speaking: The more dynamic the selected mode, the more ASC/DTC assistance is reduced. Consequently, you must always bear the following in mind with regard to your selection of a ride mode: the more dynamic the setting, the greater the challenge to your riding skill.

Throttle response:

- In the RAIN mode: Restrained
- In the ROAD mode: Direct
- with riding modes Pro\textsuperscript{OE}
- In the DYNAMIC mode: Dynamic

RAIN mode

The ASC/DTC system intervenes early enough to prevent the rear wheel from spinning. On roads with a high to medium coefficient of friction (dry and wet asphalt to dry cobblestones), the motorcycle remains very stable; movements of the rear are clearly perceptible only on slippery roads (wet bitumen or wet cobblestones).

ROAD mode

ASC/DTC system intervention is later than in RAIN mode. On roads with a high to medium coefficient of friction (dry and wet asphalt to dry cobblestones), the motorcycle remains stable. Slight rear-wheel drift is perceptible. Movements of the rear are clearly perceptible on slippery roads (wet bitumen or wet cobblestones).

- with riding modes Pro\textsuperscript{OE}

DYNAMIC mode

The DYNAMIC mode is the sportiest mode. The ASC/DTC system intervenes even later, which means that, even on dry asphalt, drifting is possible under sharp acceleration when cornering.
ABS
- The rear wheel lifting assistant is active in all modes.
- ABS is tailor to on-road operation.

- In RAIN, ROAD and DYNAMIC riding modes, ABS Pro is fully available. The tendency of the motorcycle to straighten up when the brakes are applied with the machinebanked for cornering is reduced to a minimum.

- with Dynamic ESA OE

Dynamic ESA
Basic setting in:
- RAIN: ROAD
- ROAD: ROAD
- with riding modes Pro OE
- DYNAMIC: DYNA

Changeover of the riding modes
The changeover of the functions in the engine control and the ASC/DTC is only possible if there is no drive torque at the rear wheel.
In order to achieve this state,
- the motorcycle must be at a standstill with the ignition switched on
or
- the throttle grip must be turned back and brakes must not be applied.

Dynamic Brake Control
- with riding modes Pro OE

Dynamic Brake Control function
The Dynamic Brake Control function assists the rider in panic braking situations.

Detection of panic braking
- Sudden, sharp application of the front brake is interpreted as panic braking.

Behaviour in panic braking
- If panic braking occurs at a speed in excess of 10 km/h, the ABS function is further assisted by Dynamic Brake Control.
- If partial braking at high brake pressure gradients is initiated, the Dynamic Brake Control increases the integral brake pressure on the rear wheel. The stopping distance shortens and controlled braking is possible.

Behaviour during accidental actuation of the throttle grip
- If the throttle is accidentally opened (throttle grip position > 5%) during panic braking, Dynamic Brake Control ensures the desired braking effect
by ignoring actuation of the throttle grip. The effectiveness of panic braking is ensured.
- If the throttle is closed (throttle grip position < 5 %) while Dynamic Brake Control is in action, the engine torque requested by the ABS brake system is restored.
- If panic braking ceases and the rider still has not changed the position of the throttle grip, Dynamic Brake Control steadily ramps engine torque back to the rider's requested level.

Tyre pressure control (RDC)
- with tyre pressure control (RDC)

Function
A sensor integrated into each tyre measures the air temperature and the air pressure inside the tyre and transmits this information to the control unit. The sensors are fitted with a centrifugal-force tripswitch which allows the measured values to be transmitted after the minimum speed is exceeded the first time.

Minimum speed for transmission of the RDC measured values:
min 10 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.

Time for transmission of measured values after vehicle comes to a stop:
min 15 min

An error message is issued if wheels without sensors are fitted to a vehicle equipped with an RDC control unit.

Tyre pressure ranges
The RDC control unit distinguishes between three tyre pressure ranges matched to the vehicle:
- Filling pressure within the permissible tolerance
- Filling pressure in the limit range of the permissible tolerance
- Filling pressure outside permitted tolerance
Temperature compensation

Tyre pressure is a temperature-sensitive variable: pressure increases as tyre-air temperature rises and decreases as tyre-air temperature drops. Tyre-air temperature depends on ambient temperature as well as on the style of riding and the duration of the ride.

The tyre-pressure readings in the multifunction display are temperature-compensated and are always referenced to 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. In most instances, therefore, these gauge readings will not tally with the pressures shown by the multifunction display.

Pressure adaptation

Compare the RDC value on the multifunction 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:

2.5 bar

The multifunction display shows the following reading:

2.3 bar

So pressure is low by:

0.2 bar

The gauge on the air line shows:

2.4 bar

You must now increase tyre pressure until the value is:

2.6 bar

Shift assistant

– with shift assistant Pro

Shift assistant Pro

Your vehicle is equipped with a Pro shift assistant, a system originally developed for racing and now 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 gearshift request, the rider has to move the gearshift lever from its idle position in the desired direction against the spring force through a certain "over-travel" at ordinary speed or rapidly and keep the gearshift 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. When shifting gears with the Pro shift assistant, the rider has to keep load state (throttle grip position) constant before and during the gearshift. A change in the position of the throttle grip during a gearshift can cause the function to abort and/or lead to a missed shift. The Pro shift assistant provides no assistance for the gearshift if the rider declutches.

Downshifting
- Downshifting is assisted until maximum rpm for the target gear to be selected is reached. This prevents overrevving.

<table>
<thead>
<tr>
<th>Maximum engine speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>max 9000 min⁻¹</td>
</tr>
</tbody>
</table>

Upshifting
- Upshifting is only possible when the current speed is higher than the respective release threshold of the next higher gear.
- This prevents the engine from dropping below idle speed.
Idle speed

1050 min⁻¹ (Engine at regular operating temperature)

Release thresholds

<table>
<thead>
<tr>
<th>Gear</th>
<th>Min time (min⁻¹)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>1350</td>
</tr>
<tr>
<td>2nd</td>
<td>1400</td>
</tr>
<tr>
<td>3rd</td>
<td>1450</td>
</tr>
<tr>
<td>4th</td>
<td>1500</td>
</tr>
<tr>
<td>5th</td>
<td>1550</td>
</tr>
<tr>
<td>6th</td>
<td>1600</td>
</tr>
</tbody>
</table>

Hill Start Control

Hill Start Control function

Hill Start Control is a pullaway assistant that operates on the partially integrated ABS system to prevent the vehicle from rolling back on a gradient, without the rider having to keep pressure applied to the brake lever. When Hill Start Control is activated, pressure is built up in the rear brake system to keep the machine at a standstill on a gradient. The brake pressure in the brake system is dependent on the gradient.

Effect of an incline on brake pressure and drive-off behaviour

- If the motorcycle is stopped on a gentle incline, only low brake pressure is built up. In this case, the brakes are quickly released when driving off. The motorcycle can be moved off more gently. It is not necessary to turn the throttle grip again.
- If the motorcycle is stopped on a steep incline, high brake pressure is built up. In this case, the brakes take longer to release when driving off. More torque is required for driving off which also requires the rider to turn the throttle grip again.

Behaviour when the motorcycle rolls or slips

- If the motorcycle starts to roll while Hill Start Control is active, brake pressure is increased.
- If the rear wheel slips, the brake is released again after approx. 1 m. This prevents the vehicle slipping with a locked rear wheel, for example.

Releasing brake when stopping the engine or timeout

Hill Start Control is deactivated when the engine is stopped us-
ing the emergency-off switch, when the side stand is folded out or after timeout (10 minutes). In addition to the indicator and warning lights, the rider should be made aware that Hill Start Control has been deactivated by the following behaviour:

**Brake warning jolt**
- The brake is released briefly and reactivated immediately.
- This creates a jolt which the rider feels.
- The ABS brake system with partially integral function sets a speed of approx. 1-2 km/h.
- The rider must brake the motorcycle manually.
- After two minutes, or when the brake is actuated, Hill Start Control is completely deactivated.

**NOTICE**
The holding pressure is released immediately without a brake warning jolt as soon as the ignition is switched off.

**ShiftCam**

**Functional principle of ShiftCam**
The vehicle features BMW ShiftCam technology for varying valve timing and valve lift on the intake side. The heart of this technology is a one-piece shifting intake camshaft that has two lobes for each valve: a partial-load cam and a full-load cam. The partial-load cam is fine-tuned for consumption optimisation and engine smoothness. As well as adapting valve timing, the partial-load cam also reduces intake-valve lift. With the partial-load cams activated, moreover, the lobes for the cylinder’s left and right intake valves produce staggered valve lift and offset angles of rotation. Consequently the two intake valves open at very slightly different times and the distance to which they open also differs. The advantage: The fuel/air mixture flowing into the combustion chamber is swirled more thoroughly and combusted effectively - so all in the fuel is utilised more efficiently and engine operation is perceptibly smoother. The full-load cam is designed for optimised engine power and it maximises intake valve lift. The intake camshaft is shifted axially to vary valve timing and valve lift. The pins of an electromechanical actuator engage a shift gate on the intake camshaft. This permits load-dependent and speed-dependent actuation of the intake valves and, consequently, a no-com-
promises combination of performance and low fuel consumption.
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".

Further information on maintenance and repair work is available from your BMW Motorrad authorised dealer in the form of a DVD.

Some of the work requires special tools and a thorough knowledge of the technology involved. If you are in doubt, consult a specialist workshop, preferably your authorised BMW Motorrad dealer.

Standard toolkit

1. Screwdriver handle
2. Reversible screwdriver blade
   - Phillips PH1 and Torx T25
   - Removing front seat (☞ 97),
   - Removing and installing body panels.
3. Tool for oil cap
   - Topping up the engine oil (☞ 177),
   - Removing rear seat (☞ 99),
   - Install the rear seat (☞ 100).
4. Open-ended spanner
   Width across flats 8/10

Service toolkit

BMW Motorrad has assembled a service toolkit that is ideal for carrying out extended service work (e.g. removing and installing wheels) on this motorcycle. You can obtain the tools set from your authorised BMW Motorrad dealer.
Front-wheel stand
Installing front-wheel stand

ATTENTION

Use of the BMW Motorrad front-wheel stand without accompanying use of centre stand or auxiliary stand
Risk of damage to parts if vehicle topples

- Place the motorcycle on its centre stand or another auxiliary stand before lifting the front wheel with the BMW Motorrad front-wheel stand.
- Make sure the ground is level and firm and place the motorcycle on its centre stand.
- Use basic stand with front-wheel adapter. The basic stand and its accessory components are available from your BMW Motorrad authorised dealer.

Loosen mounting bolt 1.
Push the two adapters 2 apart until the front forks fit between them.
Use locating 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 into position at the front axle.

- Align the two adapters 2 so that the front forks are securely seated.
- Tighten mounting bolt 1.
ATTENTION

Centre stand lifts clear if the motorcycle is lifted too high
Risk of damage to parts if vehicle topples
  - When lifting, make sure that the centre stand remains in contact with the ground.
  - Apply uniform pressure to push the front-wheel stand down and raise the motorcycle.

Engine oil
Checking engine oil level

**NOTICE**
Incorrect interpretation of the oil capacity is possible because the oil level is temperature-dependent.

- Make sure the ground is level and firm and with the engine at operating temperature, place the motorcycle on the centre stand.
- Allow the engine to idle until the fan cuts in.
- Switch off the engine when it is at operating temperature.
- Wait five minutes for the oil to drain into the oil pan.

**NOTICE**
To protect the environment, BMW Motorrad recommends occasionally checking the engine oil after a journey of at least 50 km.
Topping up the engine oil

- Place the motorcycle on its stand on firm, even ground.
- Wipe the area around the oil filler opening clean.
- Use oil filler cap tool 1 to remove cap 2 from the oil filler opening.
- Engage oil filler cap tool 1 in cap 2 of the oil filler opening and turn the tool anti-clockwise to remove the cap.

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.
- Check the engine oil level (176).
- Install cap 2 of the oil filler opening.

Brake system
Checking function of brakes

- Pull the front 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.

1
Brake-pad wear limit, front
1.0 mm (Friction pad only, without backing plate. The wear indicators (grooves) must be clearly visible.)

If the wear indicating marks are no longer clearly visible:
WARNING

Brake-pad thickness less than permissible minimum
Diminished braking effect, damage to the brakes
- In order to ensure the dependability of the brake system, do not permit the brake pads to wear past the minimum permissible thickness.
- Have the brake pads replaced by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

Checking 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 pads 1.

<table>
<thead>
<tr>
<th>Brake-pad wear limit, rear</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0 mm (Friction pad only, without backing plate.)</td>
</tr>
</tbody>
</table>

If the wear limit has been reached:
WARNING
Brake-pad thickness less than permissible minimum
Diminished braking effect, damage to the brakes
- In order to ensure the dependability of the brake system, do not permit the brake pads to wear past the minimum permissible thickness.
- Have the brake pads replaced by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

Checking brake-fluid level, front brakes

WARNING
Not enough brake fluid in brake fluid reservoir, or contaminants in brake fluid
Considerably reduced braking power due to presence of air, contaminants or water in the brake system
- Cease operation of the vehicle immediately and do not ride it until the fault has been rectified.
- Check the brake-fluid levels at regular intervals.
- Always make sure that the lid of the brake fluid reservoir and the area around the lid are cleaned before opening.
- Make sure that only fresh brake fluid from a sealed container is used.
- Make sure the ground is level and firm and place the motorcycle on its centre stand.
- Move the handlebars to the straight-ahead position.

• Check the brake fluid level in brake fluid reservoir for front wheel brake 1.

NOTICE
Wear of the brake pads causes the brake fluid level in the reservoir to sink.
Brake fluid level, front

Brake fluid, DOT4

It is impermissible for 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 fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad retailer.

**WARNING**

Not enough brake fluid in brake fluid reservoir, or contaminants in brake fluid

Considerably reduced braking power due to presence of air, contaminants or water in the brake system
- Cease operation of the vehicle immediately and do not ride it until the fault has been rectified.
- Check the brake-fluid levels at regular intervals.
- Always make sure that the lid of the brake fluid reservoir and the area around the lid are cleaned before opening.
- Make sure that only fresh brake fluid from a sealed container is used.

**NOTICE**

Wear of the brake pads causes the brake fluid level in the reservoir to sink.

---

Checking brake-fluid level, rear brakes

**WARNING**

Not enough brake fluid in brake fluid reservoir, or contaminants in brake fluid

Considerably reduced braking power due to presence of air, contaminants or water in the brake system
- Cease operation of the vehicle immediately and do not ride it until the fault has been rectified.
- Check the brake-fluid levels at regular intervals.
- Always make sure that the lid of the brake fluid reservoir and the area around the lid are cleaned before opening.
- Make sure that only fresh brake fluid from a sealed container is used.

- Make sure the ground is level and firm and place the motorcycle on its centre stand.
- Check the brake fluid level in brake fluid reservoir for rear wheel brake 1.
Clutch

Checking clutch function
- Pull the clutch lever.
- The pressure point must be clearly perceptible.
If the pressure point is not clearly perceptible:
- Have the clutch checked by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Coolant

Check coolant level
- Place the motorcycle on its stand on firm, even ground.
- Allow the engine to cool down.
Coolant target level

Between MIN and MAX marks on the expansion tank (Engine cold)

If the coolant drops below the permitted level:

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

Top up coolant

- Remove screws 1.

- Pull side trim panel 1 upwards from side section 2 and remove, taking care with the tabs (arrowed).

- Pull side trim panel 3 forwards and outwards.
  - Tabs 4 are pulled from the grommets.

- Open cap 1 of the coolant expansion tank and top up the coolant to the specified level.
- Check coolant level (⇒ 182).
- Close the cap of the coolant expansion tank.
Hold side panel 1 ready with the lugs in position at side trim 2.  
- Pivot side panel 3 inward.  
- Lugs 4 are pressed into the grommets.

Tyres  
Checking tyre pressures

**WARNING**

Incorrect tyre pressure  
Impaired handling characteristics of the motorcycle, shorter useful tyre life  
- Always check that the tyre pressures are correct.

**WARNING**  
Tendency of valve inserts installed vertically to open by themselves at high riding speeds  
Sudden loss of tyre pressure  
- Install valve caps fitted with rubber sealing rings and tighten firmly.  
- Make sure the ground is level and firm and place the motorcycle on its stand.

**NOTICE**  
Before adjusting tyre pressure, read the information on temperature compensation and adjusting pressure in the section entitled "Engineering details".  
- Check tyre pressures against the data below.
Tyre pressure, front
2.5 bar (tyre cold)

Tyre pressure, rear
2.9 bar (tyre cold)

If tyre pressure is too low:
• Correct tyre pressure.

Rims and tyres
Checking rims
• Make sure the ground is level and firm and place the motorcycle on its stand.
• Visually inspect the rims for defects.
• Have any damaged rims inspected by a specialist workshop and replaced if necessary, preferably by an authorised BMW Motorrad dealer.

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.
• Make sure the ground is level and firm and place the motorcycle on its stand.
• Measure the tyre tread depth in the main tread grooves with wear marks.

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 dealer or in the internet at: bmw-motorrad.com
Effect of wheel size on chassis and suspension control systems

Wheel size is very important as a parameter for the frame and suspension control systems ABS and ASC/DTC. 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 rings are essential for correct road-speed calculation, and they too must match the motorcycle’s control systems and consequently cannot be changed.

If you decide that you would like to fit non-standard wheels to your motorcycle, it is very important to consult a specialist workshop beforehand, preferably an authorised BMW Motorrad dealer. In some cases, the data programmed into the control units can be changed to suit the new wheel sizes.

RDC sticker

- with tyre pressure control (RDC) OE

On motorcycles equipped with RDC, a corresponding sticker can be found on the wheel rim at the position of the RDC sensor. When changing tyres, ensure that the RDC sensor is not damaged. Inform the authorised BMW Motorrad Retailer or the specialist workshop about the RDC sensor.

Removing front wheel

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

ATTENTION

Tyre removal not in compliance with correct procedure
Damage to RDC sensors

• Be sure to explain to the specialist workshop or authorised BMW Motorrad dealer that the wheel is fitted with an RDC sensor.

RDC sticker with tyre pressure control (RDC) OE

ATTENTION

Tyre removal not in compliance with correct procedure
Damage to RDC sensors

• Be sure to explain to the specialist workshop or authorised BMW Motorrad dealer that the wheel is fitted with an RDC sensor.

On motorcycles equipped with RDC, a corresponding sticker can be found on the wheel rim at the position of the RDC sensor. When changing tyres, ensure that the RDC sensor is not damaged. Inform the authorised BMW Motorrad Retailer or the specialist workshop about the RDC sensor.

Removing front wheel

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

ATTENTION

Tyre removal not in compliance with correct procedure
Damage to RDC sensors

• Be sure to explain to the specialist workshop or authorised BMW Motorrad dealer that the wheel is fitted with an RDC sensor.

On motorcycles equipped with RDC, a corresponding sticker can be found on the wheel rim at the position of the RDC sensor. When changing tyres, ensure that the RDC sensor is not damaged. Inform the authorised BMW Motorrad Retailer or the specialist workshop about the RDC sensor.

Removing front wheel

- Make sure the ground is level and firm and place the motorcycle on its centre stand.
Remove ABS sensor cable from the holding clips 1 and 2.
Remove screw 3 and remove the ABS sensor from the bore hole.
Mask off the parts of the wheel rim that could be scratched in the process of removing the brake calipers.

**ATTENTION**

Unwanted inward movement of the brake pads
Component damage on attempt to install the brake caliper or because brake pads have to be forced apart.

- Do not operate the brakes with a brake caliper not correctly secured.
- Remove mounting bolts 4 of the left and right brake calipers.

- Lift the front of the motorcycle until the front wheel is clear of the ground, preferably using a BMW Motorrad front-wheel stand.
- Install the front-wheel stand (175).

- Force the brake pads 1 slightly apart by rotational movement of the brake caliper 2 against brake disc 3.
- Carefully pull the brake calipers back and out until clear of the brake discs.

- Undo right axle clamping screw 1.
Remove the bolt 1.
- Undo left axle clamping screw 2.
- Press quick-release axle slightly toward the inside, so as to be better able to grip it on the right-hand side.

Withdraw quick-release axle 1, support the front wheel when doing this.
- Set down front wheel and roll forwards out of the front suspension.

Remove spacer bush 1 from the wheel hub.

**Installing front wheel**

**WARNING**

*Use of a non-standard wheel*
Malfunctions during ABS and ASC/DTC intervention
- See the information on the effect of wheel size on the ABS and ASC/DTC systems at the start of this chapter.
ATTENTION

Tightening threaded fasteners to incorrect tightening torque

Damage, or threaded fasteners work loose
- Always have the security of the fasteners checked by a specialist workshop, preferably an authorised BMW Motorrad dealer.

• Insert spacer bush 1 into the wheel hub on the left-hand side.

ATTENTION

Front wheel installed wrong way round

Risk of accident
- Note direction-of-rotation arrows on tyre or rim.
- Roll the front wheel into position between the front suspension.

• Lift front wheel and install quick-release axle 1.
• Remove front-wheel stand and firmly compress front forks several times. Do not operate handbrake lever.
• Install the front-wheel stand (⇒ 175).

• Install bolt 1 and tighten to specified torque. Counter-hold quick-release axle on the right-hand side.

Quick-release axle in telescopic forks

30 Nm

• Tighten left axle clamping screw 2 to specified torque.
Fork bridge, lower, to slider tube

Tightening sequence: Tighten screws six times in alternate sequence

19 Nm

Tighten right axle clamping screw 1 to specified torque.

Clamping screw for quick-release axle in telescopic fork

19 Nm

Remove the front-wheel stand.

Position left and right brake calipers on the brake discs.

Install mounting bolts 4 on left and right and tighten to specified torque.

Radial brake caliper on telescopic forks

38 Nm

Remove the adhesive tape from the wheel rim.
**WARNING**

Brake pads not lying against the brake disc
Risk of accident due to delayed braking effect.
- Before driving, check that the brakes respond without delay.
- Operate the brake several times until the brake pads are bedded.
- Insert ABS sensor line into the holding clips 1 and 2.
- Insert the ABS sensor into the bore hole and fit screw 3.

**Removing rear wheel**
- Pivot silencer outwards (→ 192).
- Engage first gear.
- Remove studs 1 from the rear wheel, while supporting the wheel.
- Roll the rear wheel out toward the rear.

**Install the rear wheel**

**WARNING**
Use of a non-standard wheel
Malfunctions during ABS and ASC/DTC intervention
- See the information on the effect of wheel size on the ABS and ASC/DTC systems at the start of this chapter.

**ATTENTION**

Tightening threaded fasteners to incorrect tightening torque
Damage, or threaded fasteners work loose
- Always have the security of the fasteners checked by a specialist workshop, preferably an authorised BMW Motorrad dealer.

**ATTENTION**

Rear wheel installed with tyre's direction of rotation incorrect
Risk of accident
• Note direction-of-rotation arrows on tyre or rim.
• Seat the rear wheel on the rear-wheel adapter.

Rear wheel to wheel flange

Installing sequence: tighten in diagonally opposite sequence

60 Nm
• Securing silencer (→ 193).

Silencer
Pivot silencer outwards

CAUTION
Hot exhaust system
Risk of burn injury
• Do not touch a hot exhaust system.
• Make sure the ground is level and firm and place the motorcycle on its centre stand.
• Allow the silencer to cool.

ATTENTION
Tightening threaded fasteners to incorrect tightening torque
Damage, or threaded fasteners work loose

• Remove front bolts 1 and washer 2.
• Remove the silencer cover 3.
• Detach bolt 1 from the clamp.
• Remove bolt 2 and lock washer 3.
• Turn silencer 4 clockwise and outwards.

Maintenance
• Always have the security of the fasteners checked by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Push clamp 1 as far forward as possible and position it with the recess engaging the projection (arrow).

Tighten the clamp.

Place silencer cover 3 in position.

Install screws 1 with washer 2 on front screw.

Lighting
Replacing bulb for low-beam headlight

The arrangements of the connectors and the light sources may differ from the following figures.
• Make sure the ground is level and firm and place the motor-cycle on its stand.
• Switch off the ignition.
• Remove cover 1 by turning it counter-clockwise to replace the bulb for the low-beam headlight.

**Disconnect plug 1.**

**Disengage spring clip 1 and swing it aside.**

**Remove bulb 2.**

• Replace the defective bulb.

**Bulbs for the low-beam headlight**

H7 / 12 V / 55 W

• Hold the bulb by the base only, in order to keep the glass free of foreign matter.

**Insert bulb 2, making sure that the tab is correctly positioned.**

**NOTICE**

The bulb might face in a direction other than that shown here.
Engage spring clip 1 in the catch.

Connect plug 1.

Insert cover 1 and turn it clockwise to install.

Replacing bulb for high-beam headlight

NOTICE

The description below steps you through the procedure for replacing the left bulb. The procedure for working on the right side is the same.

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

Remove screws 2.

Ease speaker cover 1 to the left to remove.

Disconnect plug 1.

Remove screws 1.
Carefully remove speaker unit 2, noting the plug.

Maintenance
Pull the tab to remove cover 1.

Disconnect plug 1.

Release spring clip 1 at left and right and swing it open.

Remove bulb 2.

Replace the defective bulb.

Install bulb 2, making sure that the tab is correctly positioned.

**NOTICE**

The bulb might face in a direction other than that shown here.

- Insert spring clip 1.

- Hold the bulb by the base only, in order to keep the glass free of foreign matter.

**Bulb for high-beam headlight**

H1 / 12 V / 55 W
- Connect plug 1.

- Install cover 1.

- Connect plug 1.

- Seat speaker unit 2 in the mount.
  - Install screws 1.

- Hold speaker cover 1 in position and install screws 2.

Replacing LED rear light
The LED rear light can be replaced only as a complete unit.
- Consult a specialist workshop, preferably an authorised BMW Motorrad dealer.

Replacing LED turn indicators
- LED turn indicators can be replaced only as a complete unit. Consult a specialist workshop, preferably an authorised BMW Motorrad dealer.
Waveguide rings, replacing
- with daytime riding light OE
- with Headlight Pro OE

Waveguide rings are integrated into the headlight and can be replaced only together with the headlight. Consult a specialist workshop, preferably an authorised BMW Motorrad dealer.

Replacing the LED additional headlights
- with additional headlight OE

The LED additional headlights can only be replaced in full; it is not possible to replace individual LEDs. Consult a specialist workshop, preferably an authorised BMW Motorrad dealer.

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.
- Place the motorcycle on its stand on firm, even ground.
- Removing battery cover (⇒ 201).
- When jump-starting the engine, do not disconnect the battery from the on-board electrical system.
• Remove protective cap 1.
• Connect the red jump lead to the positive battery connection point 2 of the drained battery and the positive terminal of the donor battery.
• Then connect one end of the black jump lead to the negative terminal of the donor battery and the other end to negative terminal 3 of the discharged battery.
• Run the engine of the donor vehicle during jump-starting.
• Start the engine of the vehicle with the discharged battery in the usual way; if the engine does not start, wait a few minutes before repeating the attempt in order to protect the starter motor and the donor battery.
• 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.

• Install the protective cap.
• Installing the battery cover (⇒ 203).

**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.

**Maintenance**
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.

Charge battery when connected

ATTENTION
Charging the battery that is connected to the vehicle via the battery terminals
Damage to the on-board electronics
- Disconnect the battery at the battery terminals before charging.

ATTENTION
Recharging a fully discharged battery via the power socket or extra socket
Damage to the vehicle electronics
- If a battery has discharged to the extent that it is completely flat (battery voltage less than 12 V, indicator lights and multifunction display remain off when the ignition is switched on) always charge the disconnected battery with the charger connected directly to the battery terminals.

ATTENTION
Unsuitable chargers connected to a socket
Damage to charger and vehicle electronics
- Use suitable BMW chargers. The suitable charger is available from your authorised BMW Motorrad dealer.
- 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. In this case, directly charge the battery at the terminals of the battery that has been disconnected from the vehicle. ●

**Charging battery when disconnected**

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

**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**

1. Switch off the ignition.
2. Remove screws 1.
3. Remove battery cover.

– with anti-theft alarm (DWA)●

● If applicable, switch off the anti-theft alarm (DWA).●
Pull retaining plate in position 1 outwards and remove in an upward direction.

Slightly lift the battery and ease it clear of the holder until the battery positive terminal is accessible.

Disconnect battery negative lead 1 and remove the battery.

The battery is removed.

**Installing battery**

- Secure battery positive lead 1.

**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).

- Push battery into the mounting.

- First push the retaining plate under the battery at position 1 and then seat it in mounts 2.
Secure battery negative lead 1.
Secure the battery with rubber strap 2.

Insert battery cover into the fixture 1 and press into the fixtures 1 and 2.

Install screws 1.
Switch on the ignition.
Adjust the time and date in the Settings - Clock and Settings - Date menu.

Fuses
Replace fuses

Switch off the ignition.
Removing front seat (97).
Pull off connector 1.

ATTENTION
Jumping of blown fuses
Risk of short-circuit and fire
Never attempt to jumper a blown fuse.
Always replace a defective fuse with a new fuse of the same amperage.
• Replace faulty fuse in accordance with layout plan.

**NOTICE**
If fuse defects recur frequently have the electric circuits checked by a specialist workshop, preferably an authorised BMW Motorrad dealer.

- Install plug 1.
- Installing front seat (⇒ 98).

### Fuse assignment

<table>
<thead>
<tr>
<th>Fuse holder</th>
<th>50 A (Fuse 1: Voltage regulator)</th>
</tr>
</thead>
</table>

**Fuse box**

| 15 A (Slot 1: Instrument cluster, alarm system (DWA), ignition lock, diagnostic socket, topcase light) |

| 7.5 A (Slot 2: Multifunction switch left, tyre pressure control (RDC), audio system) |
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 battery cover (⇒ 201).

- Press the hook 1 and pull out the diagnostic connector 2 towards the top.
- Loosen the diagnostic connector 2 from the bracket 4.
  - The interface to the diagnosis and information system can be connected to diagnostic connector 2.

Securing the diagnostic connector
- Disconnect the interface for the diagnosis and information system.

- Insert the diagnostic connector 2 into the bracket 4.
  - The locks 3 engage on both sides.
- Press the locks 3 on both sides.
• Connect the bracket 4 to the mounting 1.

• Make sure the hook 5 engages.
• Installing the battery cover (⇒ 203).
Accessories

General instructions .................. 208
Power sockets ....................... 208
Cases .................................. 209
Topcase ............................... 211
Navigation system .................. 214
General instructions

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/equipment

Power sockets

Connection of electrical devices

- You can start using electrical devices connected to the motorcycle’s sockets only when the ignition is switched on.

Cable routing

- The cables from the power sockets to the auxiliary devices must be routed in such a way that they do not impede the rider.
- The cable routing should not restrict the steering angle or obstruct handling.
- The cables must not be trapped.

Automatic shutdown

- The sockets will be automatically switched off during the start procedure.
The power supply to the sockets is switched off a certain time after the ignition is switched off, in order to prevent overloading of the onboard electrics. Low-wattage electrical accessories might not be recognised by the vehicle’s electronics. In such cases, power sockets are switched off very shortly after the ignition is turned off.

**Automatic shutdown of the sockets after ignition OFF**

max 15 min

- If the battery charge state is too low to maintain the motorcycle’s start capability, the power sockets are switched off.
- The power sockets are also switched off when the maximum load capability as stated in the technical data is exceeded.

**Cases**

**Open cases**

- with central locking system **OE**
  - If applicable, open the central locking.

**Cases**

- Push lock barrel 1 down.
  - Lever 2 pops up.
  - Pull the release lever all the way up and open the lid of the case.

**Accessories**

- Turn the key to the in the case lock to the position indicated by the dot.
Closing cases

- Pull release lever 2 all the way up.
- Close the lid of the case and press it down. Check that nothing is trapped between the lid and the case.

**NOTICE**

The cases can also be locked by turning the lock to the LOCK position. In this case, ensure that the vehicle key is not left in the cases.

- Push release lever 2 down until it engages.

Removing cases

- Turn the key in the case lock to the LOCK position and remove the key from the lock.

- Turn the key to the RELEASE position in the case lock.
  - The handle pops out.

Install cases

- Pull carry handle 3 up as far as it will go.
  - The case is released and can be removed.

- Pull the handle up as far as it will go.
Seat the case in holders 4.

Push handle 3 down until it engages.

Turn the key in the case lock to the LOCK position and remove the key from the lock.

Maximun payload and maximum speed

Note the maximum payload and the maximum permissible speed. The values for the combination described here are as follows:

- Maximum speed for riding with a loaded case
  max 180 km/h

- Payload per case
  max 10 kg

Topcase

Opening topcase
- with topcase OA
- with central locking system OE

If applicable, open the central locking.

Turn the key to the in the top-case lock to the position indicated by the dot.

Push lock barrel 1 forward.

Lever 2 pops up.
Pull the release lever all the way up and open the lid of the topcase.

Closing topcase
- with topcase OA

- Pull release lever 2 all the way up.
- Close the lid of the topcase and hold it down. Check that nothing is trapped between the lid and the case.

**NOTICE**
The topcase can also be closed when the lock is in the LOCK position. In this case, make sure that the key is not left inside the topcase.

- Push release lever 2 down until it engages.
- Turn the key in the topcase lock to the LOCK position and remove the key from the lock.

Removing the topcase
- Removing front seat (97).
- Removing rear seat (99).
- with topcase OA

- Disconnect plug 1.
- Work the plug of the topcase through to the rear.

- Open the topcase.
- If applicable, empty the topcase and lift out the bottom mat.

- Push slide latch 2 toward the outside and hold it in this position.
- Turn rotary latch 3 in the direction indicated by the RELEASE arrow.
- Release warning 4 is visible.
- Close the topcase.
• Lift the topcase at the rear and remove it from the luggage carrier.

• Install the rear seat (100).
• Installing front seat (98).

**Installing topcase**

• Removing front seat (97).
• Removing rear seat (99).
• with topcase OA

• If applicable, empty the topcase and lift out the bottom mat.

• Set the topcase on the luggage carrier.
• Opening topcase (211).

• Turn rotary latch 3 as far as it will go in the direction indicated by the LOCK arrow while pressing down on the back edge of the topcase.

• Release warning 4 is no longer visible.

If the release warning is still visible the topcase is not correctly secured.

• Make sure that the topcase is correctly seated on the luggage carrier.

• Route the connecting cable forward in cable guide 5.
• Work the cable into position at positions 6.
• Connect plug 1.<d
• Install the rear seat (⇒ 100).
• Installing front seat (⇒ 98).

**Maximum payload and maximum speed**

~ with topcase OA

Note the maximum payload and the maximum permissible speed. The values for the combination described here are as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum speed for riding with a loaded top-case</td>
<td>max 180 km/h</td>
</tr>
<tr>
<td>Payload of top-case</td>
<td>max 5 kg</td>
</tr>
</tbody>
</table>

**Navigation system**

**Securing navigation device safely**

~ with navigation system OA

~ with preparation for navigation system OE

**ATTENTION**

Dust and dirt on the Mount Cradle contacts

Damaged contacts

• Always reinstall the cover as soon as you finish your ride.

**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.

• Operate lock 1 and remove cover 2.
• First insert navigation device 1 in the fixture and then pivot 2 towards the rear.
• Press the navigation device on the upper edge until it engages into place.

• Check that the navigation device is seated firmly in the holder. The cap 1 must be engaged completely. The closing mechanism must be mounted flat and should no longer be visible.

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

• Operate lock 1 and remove the navigation device 2.

• Install cover 2.
• Check that the cover is seated firmly in the holder. The upper
retaining cap 1 must be completely engaged.

Operating navigation system
- with preparation for navigation system OE

- If applicable, switch on the ignition.
- Call up the Navigation menu.

The options for using the navigation system appear on the display.

- View: switches between the main menu, map and on-board computer views.
- Zoom +: activates functions highlighted with a + in the navigation system. In the map view, for instance, the view zooms in on the map detail.
- Zoom -: activates functions highlighted with a - in the navigation system. In the map view, for instance, the view zooms out from the map detail.
- Voice output: repeats the last navigation voice output. The voice output is also output if automatic voice commands have been switched off in the navigation system settings.
- Mute: switches automatic voice commands on and off.
- Display off: switches the navigation system display on and off.

- Select the desired operation and carry it out by pressing the Multi-Controller towards the right.

Special functions
- with preparation for navigation system OE

Integration of the BMW Motorrad Navigators can result in deviations from the descriptions in the operating instructions for the Navigator.

Reserve fuel level warning
The settings for the fuel gauge enable you to define a distance that is covered per full tank of fuel. The motorcycle sends the figure for residual range possible with the fuel remaining in the fuel tank to the Navigator, so it is no longer necessary to enter this value.
Time and date

Time and date are transmitted by the Navigator to the motorcycle. The transfer of these data into the instrument cluster must be activated in the SETUP menu of the instrument cluster.

Security settings

The BMW Motorrad Navigator V can be secured against unauthorised use with a four-digit PIN (Garmin Lock). If this function is activated, while the Navigator is cradled on the motorcycle and the ignition is switched on you are prompted to add the motorcycle to the list of secured vehicles. If you answer "Yes" at this prompt the Navigator saves the VIN of this vehicle in its internal memory. A maximum of five VINS can be saved in this way. 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.
Care

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Restoring motorcycle to use 223
Care products
BMW Motorrad recommends that you use the cleaning and care products you can obtain from your authorised BMW Motorrad Retailer. The substances in BMW Care Products have been tested in laboratories and in practice; they provide optimised care and protection for the materials used in your vehicle.

**ATTENTION**
Use of unsuitable cleaning and care products
Damage to vehicle parts
- Do not use solvents such as cellulose thinners, cold cleaners, fuel or the like, and do not use cleaning products that contain alcohol.

Use of strongly acidic or strongly alkaline cleaning agents
Damage to vehicle parts
- Dilute in accordance with the dilution ratio stated on the packaging of the cleaning agent.
- Do not use strongly acidic or strongly alkaline cleaning agents.

Washing the vehicle
BMW Motorrad recommends that you use BMW insect remover to soften and wash off insects and stubborn dirt on painted parts prior to washing the vehicle.

To prevent stains, do not wash the vehicle immediately after it has been exposed to strong sunlight and do not wash it in the sun.
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.

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.

Clean with water and sponge only.

Do not use any chemical cleaning agents.

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 components
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
• Clean the motorcycle.
• Fill the motorcycle’s fuel tank with fuel.
• Removing battery (☞ 201).
• Spray the brake and clutch lever pivots and the side-stand and centre-stand pivot mounts with a suitable lubricant.
• Coat bright metal and chrome-plated parts with an acid-free grease (e.g. Vaseline).
• Stand the motorcycle in a dry room in such a way that there is no load on either wheel (preferably using the front-wheel and rear-wheel stands from BMW Motorrad).
Restoring motorcycle to use

- Remove the protective wax coating.
- Clean the motorcycle.
- Installing battery (→ 202).
- Comply with checklist (→ 142).
Care
# Technical data

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## Troubleshooting chart

The engine does not start.

<table>
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<tr>
<th>Possible cause</th>
<th>Rectification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Side stand extended and gear engaged</td>
<td>Retract the side stand.</td>
</tr>
<tr>
<td>Gear engaged and clutch not disengaged</td>
<td>Select neutral or pull the clutch lever.</td>
</tr>
<tr>
<td>No fuel in tank</td>
<td>Refuelling (<a href="#">152</a>).</td>
</tr>
<tr>
<td>Battery flat</td>
<td>Charge battery when connected (<a href="#">200</a>).</td>
</tr>
<tr>
<td>Overheating protection for starter motor has been activated. Starter motor can only be operated for a limited period of time.</td>
<td>Allow the starter motor to cool down for approx. 1 minute before using it again.</td>
</tr>
</tbody>
</table>
### Threaded fasteners

<table>
<thead>
<tr>
<th>Front wheel</th>
<th>Value</th>
<th>Valid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radial brake caliper on telescopic forks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M10 x 65</td>
<td>38 Nm</td>
<td></td>
</tr>
<tr>
<td>Fork bridge, lower, to slider tube</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M8 x 35</td>
<td>Tightening sequence: Tighten screws six times in alternate sequence</td>
<td>19 Nm</td>
</tr>
<tr>
<td>Wheel-speed sensor to fork leg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M6 x 16</td>
<td>8 Nm</td>
<td></td>
</tr>
<tr>
<td>Micro-encapsulated or medium-strength thread-locking compound</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quick-release axle in telescopic forks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M12 x 20</td>
<td>30 Nm</td>
<td></td>
</tr>
<tr>
<td>Technical data</td>
<td>Value</td>
<td>Valid</td>
</tr>
<tr>
<td>----------------</td>
<td>-------</td>
<td>-------</td>
</tr>
<tr>
<td>Rear wheel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rear wheel to wheel flange</td>
<td>M10 x 1.25 x 40</td>
<td>Tightening sequence: tighten in diagonally opposite sequence</td>
</tr>
<tr>
<td></td>
<td>60 Nm</td>
<td></td>
</tr>
<tr>
<td>Exhaust system</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Silencer to rear frame</td>
<td>M8 x 35</td>
<td>19 Nm</td>
</tr>
<tr>
<td>Clamp to silencer and exhaust manifold</td>
<td>22 Nm</td>
<td></td>
</tr>
<tr>
<td>Mirror arm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mirror to holder</td>
<td>M6 x 50</td>
<td>8 Nm</td>
</tr>
</tbody>
</table>
## Fuel

<table>
<thead>
<tr>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Recommended fuel grade</strong></td>
<td>Super unleaded (maximum 15% ethanol, E15), 95 ROZ/RON, 90 AKI</td>
</tr>
<tr>
<td><strong>Alternative fuel grade</strong></td>
<td>Regular unleaded (power- and consumption-related restrictions.) (maximum 15% ethanol, E10/E15), 91 ROZ/RON, 87 AKI</td>
</tr>
<tr>
<td><strong>Usable fuel capacity</strong></td>
<td>approx. 25 l</td>
</tr>
<tr>
<td><strong>Reserve fuel</strong></td>
<td>approx. 4 l</td>
</tr>
<tr>
<td><strong>Fuel consumption</strong></td>
<td>4.75 l/100 km, following world-wide harmonised motorcycle test cycle (WMTC)</td>
</tr>
<tr>
<td>– with power reductionOE</td>
<td>4.88 l/100 km, following world-wide harmonised motorcycle test cycle (WMTC)</td>
</tr>
<tr>
<td><strong>CO2 emission</strong></td>
<td>110 g/km, following world-wide harmonised motorcycle test cycle (WMTC)</td>
</tr>
<tr>
<td>– with power reductionOE</td>
<td>113 g/km, following world-wide harmonised motorcycle test cycle (WMTC)</td>
</tr>
<tr>
<td><strong>Exhaust emissions standard</strong></td>
<td>Euro 4</td>
</tr>
</tbody>
</table>
Engine oil

<table>
<thead>
<tr>
<th>Specification</th>
<th>SAE 5W-40, API SL / JASO MA2, Additives (e.g. molybdenum-based) are not permissible because they can attack coated components of the engine, BMW Motorrad recommends BMW Motorrad ADVANTEC Ultimate oil.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine oil, quantity for topping up</td>
<td>max 0.8 l, Difference between MIN and MAX</td>
</tr>
</tbody>
</table>

BMW recommends ADVANTEC

Engine

<table>
<thead>
<tr>
<th>Engine number location</th>
<th>Crankcase, bottom right, below starter motor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine type</td>
<td>A74B12M</td>
</tr>
<tr>
<td>Engine design</td>
<td>Air/liquid-cooled, two-cylinder four-stroke opposed-twin engine with two overlying, spur-gear-driven camshafts, a counterbalance shaft and BMW ShiftCam variable intake camshaft control</td>
</tr>
<tr>
<td>Displacement</td>
<td>1254 cm³</td>
</tr>
<tr>
<td>Cylinder bore</td>
<td>102.5 mm</td>
</tr>
<tr>
<td>Piston stroke</td>
<td>76 mm</td>
</tr>
<tr>
<td>Specification</td>
<td>Value</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>Compression ratio</td>
<td>12.5:1</td>
</tr>
<tr>
<td>Nominal capacity</td>
<td>100 kW, at engine speed: 7750 min(^{-1})</td>
</tr>
<tr>
<td>– with power reduction(^{OE})</td>
<td>79 kW, at engine speed: 7750 min(^{-1})</td>
</tr>
<tr>
<td>Torque</td>
<td>143 Nm, at engine speed: 6250 min(^{-1})</td>
</tr>
<tr>
<td>– with power reduction(^{OE})</td>
<td>140 Nm, at engine speed: 5000 min(^{-1})</td>
</tr>
<tr>
<td>Maximum engine speed</td>
<td>max 9000 min(^{-1})</td>
</tr>
<tr>
<td>Idle speed</td>
<td>1050 min(^{-1}), Engine at regular operating temperature</td>
</tr>
</tbody>
</table>

**Clutch**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clutch type</td>
<td>Multiplate oil-bath clutch, anti-hopping</td>
</tr>
<tr>
<td>Transmission</td>
<td>Claw-shift 6-speed transmission with helical-cut splines</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------------------------------------------------</td>
</tr>
<tr>
<td>Type of transmission</td>
<td>Gearbox transmission ratios</td>
</tr>
<tr>
<td>1.000 (60:60 teeth), Primary transmission ratio</td>
<td>1.000 (60:60 teeth), Primary transmission ratio</td>
</tr>
<tr>
<td>1.650 (33:20 teeth), Transmission input ratio</td>
<td>1.650 (33:20 teeth), Transmission input ratio</td>
</tr>
<tr>
<td>2.438 (39:16 teeth), 1st gear</td>
<td>2.438 (39:16 teeth), 1st gear</td>
</tr>
<tr>
<td>1.714 (36:21 teeth), 2nd gear</td>
<td>1.714 (36:21 teeth), 2nd gear</td>
</tr>
<tr>
<td>1.296 (35:27 teeth), 3rd gear</td>
<td>1.296 (35:27 teeth), 3rd gear</td>
</tr>
<tr>
<td>1.059 (36:34 teeth), 4th gear</td>
<td>1.059 (36:34 teeth), 4th gear</td>
</tr>
<tr>
<td>0.943 (33:35 teeth), 5th gear</td>
<td>0.943 (33:35 teeth), 5th gear</td>
</tr>
<tr>
<td>0.848 (28:33 teeth), 6th gear</td>
<td>0.848 (28:33 teeth), 6th gear</td>
</tr>
<tr>
<td>1.061 (35:33 teeth), Transmission output ratio</td>
<td>1.061 (35:33 teeth), Transmission output ratio</td>
</tr>
</tbody>
</table>
### Final drive

<table>
<thead>
<tr>
<th>Type of final drive</th>
<th>Shaft drive with bevel gears</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of rear suspension</td>
<td>Cast aluminium single swinging arm featuring BMW Motorrad Paralever</td>
</tr>
<tr>
<td>Gear ratio of final drive</td>
<td>2.75 (33/12 teeth)</td>
</tr>
<tr>
<td>Rear axle differential oil</td>
<td>SAE 70W-80 / Hypoid Axle G3</td>
</tr>
</tbody>
</table>

### Frame

<table>
<thead>
<tr>
<th>Frame type</th>
<th>Tubular steel frame with supporting drive unit, steel pipe rear frames</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type plate location</td>
<td>Frame, front left at steering head</td>
</tr>
<tr>
<td>Position of the vehicle identification number</td>
<td>Frame, front right on steering head</td>
</tr>
</tbody>
</table>
### Chassis and suspension

#### Front wheel

<table>
<thead>
<tr>
<th>Type of front suspension</th>
<th>BMW Telelever, with anti-dive top fork bridge, leading link mounted on engine and telescopic forks, central spring strut supported by leading link and frame</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design of front wheel suspension</td>
<td>Central shock absorber with helical spring</td>
</tr>
<tr>
<td>– with Dynamic ESA&lt;sup&gt;OE&lt;/sup&gt;</td>
<td>Central shock absorber complete with torsion spring and header tank, electrically adjustable decompression and compression-stage damping</td>
</tr>
<tr>
<td>Spring travel, front</td>
<td>120 mm, at wheel</td>
</tr>
</tbody>
</table>

#### Rear wheel

<table>
<thead>
<tr>
<th>Type of rear suspension</th>
<th>Cast aluminium single swinging arm featuring BMW Motorrad Paralever</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of rear-wheel suspension</td>
<td>Central spring strut with coil spring, adjustable rebound-stage damping and spring preload</td>
</tr>
<tr>
<td>– with Dynamic ESA&lt;sup&gt;OE&lt;/sup&gt;</td>
<td>ESA-2 with spring rate adjustment</td>
</tr>
<tr>
<td>Spring travel at rear wheel</td>
<td>136 mm</td>
</tr>
</tbody>
</table>
### Brakes

#### Front wheel

<table>
<thead>
<tr>
<th>Type of front brake</th>
<th>Hydraulically operated twin disc brake with 4-piston radial brake calipers and floating brake discs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brake-pad material, front</td>
<td>Sintered metal</td>
</tr>
<tr>
<td>Brake disc thickness, front</td>
<td>min 4 mm, Wear limit</td>
</tr>
<tr>
<td>Play of brake controls (Front brake)</td>
<td>approx. 1.85 mm, at piston</td>
</tr>
</tbody>
</table>

#### Rear wheel

<table>
<thead>
<tr>
<th>Type of rear brake</th>
<th>Hydraulically actuated disc brake with 2-piston floating caliper and fixed disc</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brake-pad material, rear</td>
<td>Sintered metal</td>
</tr>
<tr>
<td>Brake disc thickness, rear</td>
<td>min 4.5 mm, Wear limit</td>
</tr>
<tr>
<td>Blow-by clearance of the footbrake lever</td>
<td>1...1.5 mm, between the frame and the footbrake lever</td>
</tr>
</tbody>
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### Wheels and tyres

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<th>Recommended tyre combinations</th>
<th>An overview of currently approved tyres is available from your authorised BMW Motorrad Retailer or on the Internet at bmw-motorrad.com.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed category, front/rear tyres</td>
<td>W, required at least: 270 km/h</td>
</tr>
<tr>
<td><strong>Front wheel</strong></td>
<td></td>
</tr>
<tr>
<td>Front-wheel type</td>
<td>Aluminium cast wheel</td>
</tr>
<tr>
<td>Front-wheel rim size</td>
<td>3.5&quot; x 17&quot;</td>
</tr>
<tr>
<td>Tyre designation, front</td>
<td>120/70 - ZR17</td>
</tr>
<tr>
<td>Load index, front tyre</td>
<td>min. 58</td>
</tr>
<tr>
<td>Permissible wheel load, front</td>
<td>max 210 kg</td>
</tr>
<tr>
<td>Permissible front-wheel imbalance</td>
<td>max 5 g</td>
</tr>
<tr>
<td><strong>Rear wheel</strong></td>
<td></td>
</tr>
<tr>
<td>Rear-wheel type</td>
<td>Aluminium cast wheel</td>
</tr>
<tr>
<td>Rear wheel rim size</td>
<td>5.5&quot; x 17&quot;</td>
</tr>
<tr>
<td>Tyre designation, rear</td>
<td>180/55 - ZR17</td>
</tr>
<tr>
<td>Load index, rear tyre</td>
<td>min. 73</td>
</tr>
<tr>
<td>Permissible wheel load, rear</td>
<td>max 330 kg</td>
</tr>
<tr>
<td>Permissible rear-wheel imbalance</td>
<td>max 45 g</td>
</tr>
</tbody>
</table>
## Tyre pressures

<table>
<thead>
<tr>
<th>Tyre pressure, front</th>
<th>2.5 bar, tyre cold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tyre pressure, rear</td>
<td>2.9 bar, tyre cold</td>
</tr>
</tbody>
</table>

## Electrical system

<table>
<thead>
<tr>
<th>Electrical rating of on-board sockets</th>
<th>max 5 A, total for all sockets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuse box</td>
<td>15 A, Slot 1: Instrument cluster, alarm system (DWA), ignition lock, diagnostic socket, topcase light</td>
</tr>
<tr>
<td></td>
<td>7.5 A, Slot 2: Multifunction switch left, tyre pressure control (RDC), audio system</td>
</tr>
<tr>
<td>Fuse holder</td>
<td>50 A, Fuse 1: Voltage regulator</td>
</tr>
</tbody>
</table>

### Battery

<table>
<thead>
<tr>
<th>Battery type</th>
<th>AGM (Absorbent Glass Mat) battery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battery rated voltage</td>
<td>12 V</td>
</tr>
<tr>
<td>Battery rated capacity</td>
<td>16 Ah</td>
</tr>
</tbody>
</table>

### Spark plugs

| Spark plugs, manufacturer and designation | NGK LMAR8AI-10 |
### Lighting

<table>
<thead>
<tr>
<th>Bulb for</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>high-beam headlight</td>
<td>H1 / 12 V / 55 W</td>
</tr>
<tr>
<td>low-beam headlight</td>
<td>H7 / 12 V / 55 W</td>
</tr>
<tr>
<td>parking light</td>
<td>LED ring light</td>
</tr>
<tr>
<td>tail light/brake light</td>
<td>LED</td>
</tr>
<tr>
<td>turn indicators</td>
<td>LED</td>
</tr>
<tr>
<td>flashing turn indicators, rear</td>
<td>LED</td>
</tr>
</tbody>
</table>

### Anti-theft alarm

<table>
<thead>
<tr>
<th>Feature</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activation time on arming</td>
<td>approx. 30 s</td>
</tr>
<tr>
<td>Alarm duration</td>
<td>approx. 26 s</td>
</tr>
<tr>
<td>Battery type</td>
<td>CR 123 A</td>
</tr>
</tbody>
</table>
## Dimensions

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Length of motorcycle</strong></td>
<td>2222 mm, over number-plate carrier</td>
</tr>
<tr>
<td><strong>Height of motorcycle</strong></td>
<td>1405...1570 mm, Over windscreen, at DIN unladen weight</td>
</tr>
<tr>
<td><strong>Width of motorcycle</strong></td>
<td>985 mm, with mirrors</td>
</tr>
<tr>
<td></td>
<td>990 mm, with cases</td>
</tr>
<tr>
<td><strong>Height of rider's seat</strong></td>
<td>805...825 mm, Without rider at unladen weight</td>
</tr>
<tr>
<td>– with rider's seat, lowOE</td>
<td>760...780 mm, Without rider at unladen weight</td>
</tr>
<tr>
<td>– with rider's seat, highOE</td>
<td>830...850 mm, Without rider at unladen weight</td>
</tr>
<tr>
<td><strong>Rider's inside-leg arc, heel to heel</strong></td>
<td>1810...1850 mm, without rider at DIN unladen weight</td>
</tr>
<tr>
<td>– with rider's seat, lowOE</td>
<td>1740...1780 mm, without rider at DIN unladen weight</td>
</tr>
<tr>
<td>– with rider's seat, highOE</td>
<td>1875...1915 mm, without rider at DIN unladen weight</td>
</tr>
</tbody>
</table>
### Weights

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle kerb weight</td>
<td>279 kg, DIN unladen weight, ready for road, 90 % load of fuel, without optional extras</td>
</tr>
<tr>
<td>Permissible gross vehicle weight</td>
<td>505 kg</td>
</tr>
<tr>
<td>Maximum payload</td>
<td>226 kg</td>
</tr>
<tr>
<td>Payload per case</td>
<td>max 10 kg</td>
</tr>
<tr>
<td>Payload of topcase</td>
<td>max 5 kg</td>
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### Performance figures

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Top speed</td>
<td>&gt;200 km/h</td>
</tr>
<tr>
<td>Maximum speed for riding with a loaded case</td>
<td>max 180 km/h</td>
</tr>
<tr>
<td>Maximum speed for riding with a loaded topcase</td>
<td>max 180 km/h</td>
</tr>
</tbody>
</table>
### Radio

**Wavebands**
- FM, LW and MW, FM and AM in some countries

**Wavebands**
- **FM**: 87.5...108.0 MHz
- **LW**: 153...279 MHz, not available in all countries
- **MW**: 531...1602 MHz

**Station memory**
- Twelve system memory slots and twelve personal memory slots for each waveband

### MP3

**MP3 standard**
- MPEG1 Layer 3

**Sampling rate**
- 32 / 44.1 / 48 kHz

**Bitrates**
- 32, 40, 48, 56, 64, 80, 96, 112, 128, 160, 192, 224, 256, 320 kbit/s
## Technical data

### Bluetooth
<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency range</td>
<td>2.402...2.480 kHz</td>
</tr>
<tr>
<td>Supported standards</td>
<td>1.2 and 2.0</td>
</tr>
<tr>
<td>Profiles</td>
<td>A2DP, SPP</td>
</tr>
</tbody>
</table>

### External audio devices
<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plug</td>
<td>3.5 mm, Stereo jack plug</td>
</tr>
<tr>
<td>Input-signal range</td>
<td>0...1 V, Effective</td>
</tr>
</tbody>
</table>

### Speakers
<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
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</thead>
<tbody>
<tr>
<td>Impedance</td>
<td>4 Ω</td>
</tr>
<tr>
<td>Output power</td>
<td>15 W, RMS, per speaker unit</td>
</tr>
<tr>
<td>Frequency range</td>
<td>2.402...2.480 kHz</td>
</tr>
<tr>
<td>Service</td>
<td>Page</td>
</tr>
<tr>
<td>----------------------------</td>
<td>------</td>
</tr>
<tr>
<td>BMW Motorrad Service</td>
<td>244</td>
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<tr>
<td>BMW Motorrad Service history</td>
<td>244</td>
</tr>
<tr>
<td>BMW Motorrad Mobility</td>
<td>245</td>
</tr>
<tr>
<td>services</td>
<td>245</td>
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<tr>
<td>Maintenance work</td>
<td>245</td>
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<tr>
<td>BMW Service</td>
<td>245</td>
</tr>
<tr>
<td>Maintenance schedule</td>
<td>249</td>
</tr>
<tr>
<td>Maintenance confirmations</td>
<td>250</td>
</tr>
<tr>
<td>Service confirmations</td>
<td>264</td>
</tr>
</tbody>
</table>
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 dealerships 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 dealership 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 dealer 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.

When an entry is made in the electronic service booklet of the vehicle, service-relevant data is saved in the central IT systems of BMW AG, Munich, Germany. If there is a change in vehicle 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**
As owner of a new BMW motorcycle, in circumstances in which assistance is required you can benefit from the protection afforded by the various BMW Motorrad mobility services (e.g. Mobile Service, breakdown service, vehicle recovery service).

Your authorised BMW Motorrad dealer will be happy to provide information about the mobility services available to you.

**Maintenance work**

**BMW Pre-delivery Check**
Your authorised BMW Motorrad dealer conducts the BMW pre-delivery check before handing over the vehicle to you.

**BMW Running-in Check**
The BMW running-in check has to be performed when the vehicle has covered 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-due indicator in the multifunction display reminds you about one month or 1000 km in advance when the time for a service is approaching, on the basis of the programmed values.

To find out more about service, go to: bmw-motorrad.com/service
The scope of maintenance work required for your vehicle can be found in the following maintenance schedule.
<table>
<thead>
<tr>
<th>Service</th>
<th>500 - 1200 km</th>
<th>300 - 750 mls</th>
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<tbody>
<tr>
<td></td>
<td>×</td>
<td>×</td>
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<tr>
<td></td>
<td>10 000 km</td>
<td>6 000 mls</td>
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<tr>
<td></td>
<td>×</td>
<td>×</td>
</tr>
<tr>
<td></td>
<td>20 000 km</td>
<td>12 000 mls</td>
</tr>
<tr>
<td></td>
<td>×</td>
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<tr>
<td></td>
<td>30 000 km</td>
<td>18 000 mls</td>
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<tr>
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<td>×</td>
<td>×</td>
</tr>
<tr>
<td></td>
<td>40 000 km</td>
<td>24 000 mls</td>
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<tr>
<td></td>
<td>×</td>
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</tr>
<tr>
<td></td>
<td>50 000 km</td>
<td>30 000 mls</td>
</tr>
<tr>
<td></td>
<td>×</td>
<td>×</td>
</tr>
<tr>
<td></td>
<td>60 000 km</td>
<td>36 000 mls</td>
</tr>
<tr>
<td></td>
<td>×</td>
<td>×</td>
</tr>
<tr>
<td></td>
<td>70 000 km</td>
<td>42 000 mls</td>
</tr>
<tr>
<td></td>
<td>×</td>
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</tr>
<tr>
<td></td>
<td>80 000 km</td>
<td>48 000 mls</td>
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<tr>
<td></td>
<td>×</td>
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<tr>
<td></td>
<td>90 000 km</td>
<td>54 000 mls</td>
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<tr>
<td></td>
<td>×</td>
<td>×</td>
</tr>
<tr>
<td></td>
<td>100 000 km</td>
<td>60 000 mls</td>
</tr>
<tr>
<td></td>
<td>×</td>
<td>×</td>
</tr>
<tr>
<td></td>
<td>12 months</td>
<td></td>
</tr>
<tr>
<td></td>
<td>×</td>
<td>×</td>
</tr>
<tr>
<td></td>
<td>24 months</td>
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</tbody>
</table>
Maintenance schedule

1. BMW running-in check (including oil change)
2. BMW Service standard scope
3. Engine-oil change, with filter
4. Oil change in bevel gears rear
5. Check valve clearance
6. Replace all spark plugs
7. Replace air filter element
8. Change brake fluid, entire system
   a. annually or every 10000 km (whichever comes first)
   b. every 2 years or every 20000 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 diagnosis system
- Visual inspection of clutch system
- Visual inspection of the brake lines, brake hoses and connections
- Checking front brake pads and brake discs for wear
- Checking brake-fluid level, front wheel brake
- Checking rear brake pads and brake disc for wear
- Checking brake-fluid level, rear wheel brake
- Checking coolant level
- Check the side stand’s ease of movement
- Checking ease of movement of the centre stand
- Checking tyre pressure and tread depth
- Check lighting and signalling system
- Function test, engine start suppression
- Final inspection and check for road safety
- Setting service date and remaining distance with BMW Motorrad diagnosis system
- Checking battery state of charge
- Confirming BMW service in on-board literature
BMW pre-delivery check
carried out
at____________________
Stamp, signature

BMW Running-in Check
carried out
at____________________
Odometer reading_______
Next service
at the latest
at____________________
or, when reached earlier
Odometer reading_______
Stamp, signature

13
251
Service
<table>
<thead>
<tr>
<th>BMW Service carried out</th>
<th>Work performed</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>at____________________</td>
<td>BMW Service</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>Odometer reading_______</td>
<td>Oil change, engine, with filter</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>Next service</td>
<td>Oil change in rear bevel gears</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>at the latest</td>
<td>Checking valve clearance</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>at____________________</td>
<td>Renewing all spark plugs</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>or, when reached earlier</td>
<td>Renewing air cleaner insert</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>Odometer reading_______</td>
<td>Checking or replacing air filter element</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td></td>
<td>(for maintenance)</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>Change brake fluid in entire system</td>
<td></td>
<td>___</td>
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</table>

Notes

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Stamp, signature

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<table>
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<tbody>
<tr>
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Notes

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</tbody>
</table>

Notes

_________________________________________________________

Stamp, signature

_________________________________________________________
<table>
<thead>
<tr>
<th>Work performed</th>
<th>Yes</th>
<th>No</th>
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<tbody>
<tr>
<td>BMW Service</td>
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<td></td>
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<td>Notes</td>
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**Stamp, signature**
<table>
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<td>BMW Service</td>
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<td>Oil change, engine, with filter</td>
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<td></td>
</tr>
<tr>
<td>Renewing air cleaner insert</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Checking or replacing air filter element (for maintenance)</td>
<td></td>
<td></td>
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<tr>
<td>Change brake fluid in entire system</td>
<td></td>
<td></td>
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</tbody>
</table>

Notes

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Stamp, signature
## BMW Service

### Carried out at:

<table>
<thead>
<tr>
<th>Odometer reading</th>
<th>next service at the latest</th>
<th>or, when reached earlier</th>
<th>Odometer reading</th>
</tr>
</thead>
</table>

### Work performed

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

- BMW Service
- Oil change, engine, with filter
- Oil change in rear bevel gears
- Checking valve clearance
- Renewing all spark plugs
- Renewing air cleaner insert
- Checking or replacing air filter element (for maintenance)
- Change brake fluid in entire system

### Notes

- ............................................................
- ............................................................
- ............................................................
- ............................................................

### Stamp, signature

- ............................................................
- ............................................................
- ............................................................
BMW Service

Work performed

Yes  No

BMW Service

Oil change, engine, with filter

Oil change in rear bevel gears

Checking valve clearance

Renewing all spark plugs

Renewing air cleaner insert

Checking or replacing air filter element

(for maintenance)

Change brake fluid in entire system

Notes

Stamp, signature
<table>
<thead>
<tr>
<th>BMW Service carried out</th>
<th>Work performed</th>
<th>Yes</th>
<th>No</th>
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</thead>
<tbody>
<tr>
<td>at______________________</td>
<td>BMW Service</td>
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<tr>
<td>Odometer reading_______</td>
<td>Oil change, engine, with filter</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>at the latest</td>
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The table is used to verify maintenance and repair work as well as installed optional accessories and purchased special promotions.

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Declaration of Conformity

Radio equipment electronic immobiliser (EWS)


Technical information
Frequency Band: 134 kHz
(Transponder: TMS37145 / TypeDST80, TMS3705 Transponder Base Station IC)
Output Power: 50 dBµV/m

Manufacturer and Address
Manufacturer: BECOM Electronics GmbH
Adress: Technikerstraße 1, A-7442 Hochstraß

Austria
Hiermit erklärt BECOM Electronics GmbH, dass der Funkanlagentyp EWS4 der Richtlinie 2014/53/EU entspricht. Der vollständige Text der EU-Konformitätserklärung ist unter der folgenden Internetadresse verfügbar:
http://www.becom.at/de/download/

Belgium
Le soussigné, BECOM Electronics GmbH, déclare que l’équipement radioélectrique du type EWS4 est conforme à la directive 2014/53/UE. Le texte complet de la déclaration UE de conformité est disponible à l’adresse internet suivante: http://www.becom.at/de/download/

Bulgaria
С настоящото BECOM Electronics GmbH декларира, че този тип радиосъоръжение EWS4 е в съответствие с Директива 2014/53/ЕС. Цялостният текст на ЕС декларацията за съответствие може да се намери на следния интернет адрес:
http://www.becom.at/de/download/
Cyprus
Με την παρούσα ο/η BECOM Electronics GmbH, δηλώνει ότι ο ραδιοεξοπλισμός EWS4 πληροί την οδηγία 2014/53/ΕΕ. 
Το πλήρες κείμενο της δήλωσης συμμόρφωσης ΕΕ διατίθεται στην ακόλουθη ιστοσελίδα στο διαδίκτυο: http://www.becom.at/de/download/

Czech Republic
Tímto BECOM Electronics GmbH prohlašuje, že typ rádiového zařízení EWS4 je v souladu se směrnicí 2014/53/EU. 
Úplné znění EU prohlášení o shodě je k dispozici na této internetové adrese: http://www.becom.at/de/download/

Germany
Der vollständige Text der EU-Konformitätserklärung ist unter der folgenden Internetadresse verfügbar: http://www.becom.at/de/download/

Denmark
Hermed erklærer BECOM Electronics GmbH, at radioudstyrstypen EWS4 er i overensstemmelse med direktiv 2014/53/EU. 
EU-overensstemmelseserklæringens fulde tekst kan findes på følgende internetadresse: http://www.becom.at/de/download/

Estonia
ELi vastavusdeklaratsiooni täielik tekst on kättesaadav järgmisel internetiaadressil: http://www.becom.at/de/download/

Spain
Por la presente, BECOM Electronics GmbH declara que el tipo de equipo radioeléctrico EWS4 es conforme con la Directiva 2014/53/UE. 
El texto completo de la declaración UE de conformidad está disponible en la dirección Internet siguiente: http://www.becom.at/de/download/
Finland
BECOM Electronics GmbH vakuuttaa, että radiolaitetyyppi EWS4 on direktiivin 2014/53/EU mukainen.
EU-vaatimustenmukaisuusvakuutuksen täysimittainen teksti on saatavilla seuraavassa internetosoitteessa:
http://www.becom.at/de/download/

France
Le soussigné, BECOM Electronics GmbH, déclare que l’équipement radioélectrique du type EWS4 est conforme à la directive 2014/53/UE.
Le texte complet de la déclaration UE de conformité est disponible à l’adresse internet suivante: http://www.becom.at/de/download/

United Kingdom
Hereby, BECOM Electronics GmbH declares that the radio equipment type EWS4 is in compliance with Directive 2014/53/EU.
The full text of the EU declaration of conformity is available at the following internet address: http://www.becom.at/de/download/

Greece
Με την παρούσα ο/η BECOM Electronics GmbH, δηλώνει ότι ο ραδιοεξοπλισμός EWS4 πληροί την οδηγία 2014/53/ΕΕ.
Το πλήρες κείμενο της δήλωσης συμμόρφωσης ΕΕ διατίθεται στην ακόλουθη ιστοσελίδα στο διαδίκτυο: http://www.becom.at/de/download/

Croatia
BECOM Electronics GmbH ovime izjavljuje da je radijska oprema tipa EWS4 u skladu s Direktivom 2014/53/EU.
Cjeloviti tekst EU izjave o sukladnosti dostupan je na sljedećoj internetskoj adresi: http://www.becom.at/de/download/

Hungary
BECOM Electronics GmbH igazolja, hogy a EWS4 típusú rádióberendezés megfelel a 2014/53/EU irányelvnek.
Az EU-megfelelőségi nyilatkozat teljes szövege elérhető a következő internetes címen: http://www.becom.at/de/download/
Ireland
Hereby, BECOM Electronics GmbH declares that the radio equipment type EWS4 is in compliance with Directive 2014/53/EU.
The full text of the EU declaration of conformity is available at the following internet address:
http://www.becom.at/de/download/

Italy
Il fabbricante, BECOM Electronics GmbH, dichiara che il tipo di apparecchiatura radio EWS4 è conforme alla direttiva 2014/53/UE.
Il testo completo della dichiarazione di conformità UE è disponibile al seguente indirizzo Internet:
http://www.becom.at/de/download/

Lithuania
Aš, BECOM Electronics GmbH, patvirtinu, kad radijo įrenginių tipas EWS4 atitinka Direktīvą 2014/53/ES.
Visas ES atitikties deklaracijos tekstas prieinamas šiuo interneto adresu:
http://www.becom.at/de/download/

Luxembourg
Le soussigné, BECOM Electronics GmbH, déclare que l’équipement radioélectrique du type EWS4 est conforme à la directive 2014/53/UE.
Le texte complet de la déclaration UE de conformité est disponible à l’adresse internet suivante: http://www.becom.at/de/download/

Latvia
Ar šo BECOM Electronics GmbH deklarē, ka radioiekārta EWS4 atbilst Direktīvai 2014/53/ES.
Pilns ES atbilstības deklarācijas teksts ir pieejams šādā interneta vietnē:
http://www.becom.at/de/download/

Malta
B’dan, BECOM Electronics GmbH, niddikjara li dan it-tip ta’ tagħmir tar-radju EWS4 huwa konformi mad-Direttiva 2014/53/UE.
Ilt-test kollu tad-dikjarazzjoni ta’ konformitā tal-UE huwa disponibbli f’dan l-indirizz tal-Internet li ġej:
http://www.becom.at/de/download/
Netherlands
Hierbij verklaar ik, BECOM Electronics GmbH, dat het type radioapparatuur EWS4 conform is met Richtlijn 2014/53/EU. De volledige tekst van de EU-conformiteitsverklaring kan worden geraadpleegd op het volgende internetadres:
http://www.becom.at/de/download/

Poland
BECOM Electronics GmbH niniejszym oświadcza, że typ urządzenia radiowego EWS4 jest zgodny z dyrektywą 2014/53/UE. Pełny tekst deklaracji zgodności UE jest dostępny pod następującym adresem internetowym:
http://www.becom.at/de/download/

Portugal
O(a) abaixo assinado(a) BECOM Electronics GmbH declara que o presente tipo de equipamento de rádio EWS4 está em conformidade com a Diretiva 2014/53/UE. O texto integral da declaração de conformidade está disponível no seguinte endereço de Internet:
http://www.becom.at/de/download/

Romania
Prin prezenta, BECOM Electronics GmbH declară că tipul de echipamente radio EWS4 este în conformitate cu Directiva 2014/53/UE. Textul integral al declarării UE de conformitate este disponibil la următoarea adresă internet:
http://www.becom.at/de/download/

Sweden
Härmed försäkrar BECOM Electronics GmbH att denna typ av radioutrustning EWS4 överensstämmer med direktiv 2014/53/EU. Den fullständiga texten till EU-försäkran om överensstämmelse finns på följande webbadress:
http://www.becom.at/de/download/

Slovenia
BECOM Electronics GmbH potrjuje, da je tip radijske opreme EWS4 skladen z Direktivo 2014/53/EU. Celotno besedilo izjave EU o skladnosti je na voljo na naslednjem spletnem naslovu:
http://www.becom.at/de/download/
Slovakia
BECOM Electronics GmbH týmto vyhlasuje, že rádiové zariadenie typu EWS4 je v súlade so smernicou 2014/53/EÚ.
Úplné EU vyhlásenie o zhode je k dispozícii na tejto internetovej adrese:
http://www.becom.at/de/download/
FCC Approval

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. ⚠️
Remote Control for central locking system

Česky
Meta System S.p.A. tímto prohlašuje, že tento PF240009 je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 1999/5/ES.

Dansk
Undertegnede Meta System S.p.A. erklærer herved, at følgende udstyr PF240009 overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF.

Deutsch

Eesti

English
Hereby, Meta System S.p.A. declares that this PF240009 is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

Español
Por medio de la presente Meta System S.p.A. declara que el PF240009 cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE.
Certifications

Ελληνικά
ΜΕ ΤΗΝ ΠΑΡΟΥΣΙΑ Μeta System S.p.A. ΔΗΛΩΝΕΙ ΟΤΙ ΠF240009 ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/EK.

Français
Par la présente Meta System S.p.A. déclare que l’appareil PF240009 est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE.

Italiano
Con la presente Meta System S.p.A. dichiara che questo PF240009 è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.

Latviski

Lietuvių

Nederlands
Hierbij verklaart Meta System S.p.A. dat het toestel PF240009 in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG.

Malti
Hawnhekk, Meta System S.p.A., jiddikjara li dan PF240009 jikkonforma mal-ħtiġijiet essenzjali u ma provvedimenti ohrajn relevanti li hemm fid-Dirrettiva 1999/5/EC.

Magyar

Polski
Niniejszym Meta System S.p.A. oświadcza, że PF240009 jest zgodny z zasadniczymi wymogami oraz pozostałymi stosownymi postanowieniami Dyrektywy 1999/5/EC.

Português
Meta System S.p.A. declara que este PF240009 está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.
Certifications

**Slovensko**

**Slovensky**
Meta System S.p.A. týmto vyhlasuje, že PF240009 splňa základné požiadavky a všetky príslušné ustanovenia Smernice 1999/5/ES.

**Suomi**

**Svenska**
Härmed intygar Meta System S.p.A. att denna PF240009 står i överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.

**Íslenska**
Her með lýsir Meta System S.p.A. yfir því að PF240009 er í samræmi við grunnkröfur og aðrar kröfur, sem gerðar eru í tilskipun 1999/5/EG.

**Norsk**
Meta System S.p.A. erklærer herved at utstyret PF240009 er i samsvar med de grunnleggende krav og øvrige relevante krav i direktiv 1999/5/EF.

**USA, Canada**

<table>
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<tr>
<th>Product name: TX BMW MR</th>
<th>FCC ID: P3O98400</th>
<th>IC:4429A - TXBMWMR</th>
</tr>
</thead>
</table>

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

R&TTE Declaration Of Conformity (DoC)

We: 

Meta System S.p.A.

with the address:

Via Majakovskij 10 b/c/d/e
42124 Reggio Emilia – Italy

Declare

Under own responsibility that the product:

TX BMW MR

To which this declaration relates is in conformity with the essential requirements and other relevant requirements of the R&TTE Directive (1999/5/EC).

This product is in conformity with the following standards:

- Health & Safety (art.3.1) EN 60950-1
- EMC (art.3.2) ETSI EN 301 489-1/-3
- Spectrum ETSI EN 300 220 - 2
- Human exposure EN 62311

According to Directive 1999/5/EC
Reggio Emilia, 14/07/2010

Technical Director
Lasagni Cesare
Declaration of Conformity

Radio equipment Keyless Ride


Technical information
Frequency band: 434.42 MHz
Maximum Transmission Power: 10 mW

Manufacturer and Address
Manufacturer:
Huf Hülsbeck & Fürst GmbH & Co. KG,
Steeger Str. 17, 42551 Velbert, Germany

Bulgarski
С настоящото Huf Hülsbeck & Fürst GmbH & Co. KG декларира, че този тип радиосъоръжение HUF5750 е в съответствие с Директива 2014/53/ЕС.
Цялостният текст на ЕС декларацията за съответствие може да се намери на следния интернет адрес: http://www.huf-group.com/eudoc/

Česky
Tímto Huf Hülsbeck & Fürst GmbH & Co. KG prohlašuje, že typ rádiového zařízení HUF5750 je v souladu se směrnici 2014/53/EU.
Úplné znění EU prohlášení o shodě je k dispozici na této internetové adrese: http://www.huf-group.com/eudoc

Dansk
Hermed erklærer Huf Hülsbeck & Fürst GmbH & Co. KG, at radioudstyrstypen HUF5750 er i overensstemmelse med direktiv 2014/53/EU.
EU-overensstemmelseserklæringens fulde tekst kan findes på følgende internetadresse: http://www.huf-group.com/eudoc
Hereby, Huf Hülsbeck & Fürst GmbH & Co. KG declares that the radio equipment type HUF5750 is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: http://www.huf-group.com/eudoc
Hér Hülsbeck & Fürst GmbH & Co. KG að radióbúnaður gerð HUF5750 tilskipunar 2014/53/EB samsvarandi.
The fullur texti af ESB-samræmisfyrting er í boði á eftirfarandi veffang: http://www.huf-group.com/eudoc

Il fabbricante, Huf Hülsbeck & Fürst GmbH & Co. KG, dichiara che il tipo di apparecchiatura radio HUF5750 è conforme alla direttiva 2014/53/UE.
Il testo completo della dichiarazione di conformità UE è disponibile al seguente indirizzo Internet: http://www.huf-group.com/eudoc

Ar šo Huf Hülsbeck & Fürst GmbH & Co. KG deklarē, ka radioiekārta HUF5750 atbilst Direktīvai 2014/53/ES.
Pilns ES atbilstības deklarācijas teksts ir pieejams Šādā interneta vietnē: http://www.huf-group.com/eudoc

Aš, Huf Hülsbeck & Fürst GmbH & Co. KG, patvirtinu, kad radijo įrenginių tipas HUF5750 atitinka Direktyvą 2014/53/ES.
Visas ES atitikties deklaracijos tekstas prieinamas šiuo interneto adresu: http://www.huf-group.com/eudoc

B'dan, Huf Hülsbeck & Fürst GmbH & Co. KG, niddikjara li dan it-tip ta' tagħmir tar-radju HUF5750 huwa konformi mad-Direttiva 2014/53/UE.
It-test kollu tad-dikjarazzjoni ta' konformità tal-UE huwa disponibbli f'dan l-indirizz tal-Internet li gej: http://www.huf-group.com/eudoc
Hierbij verklaar ik, Huf Hülsbeck & Fürst GmbH & Co. KG, dat het type radioapparatuur HUF5750 conform is met Richtlijn 2014/53/EU.

De volledige tekst van de EU-conformiteitsverklaring kan worden geraadpleegd op het volgende internetadres: http://www.huf-group.com/eudoc

Norsk


Polski


Português

O(a) abaixo assinado(a) Huf Hülsbeck & Fürst GmbH & Co. KG declara que o presente tipo de equipamento de rádio HUF5750 está em conformidade com a Diretiva 2014/53/UE. O texto integral da declaração de conformidade está disponível no seguinte endereço de Internet: http://www.huf-group.com/eudoc

Românesc


Slovensko

Slovensky
Huf Hülsbeck & Fürst GmbH & Co. KG týmto vyhlasuje, že rádiové zariadenie typu HUF5750 je v súlade so smernicou 2014/53/EÚ. Úplné EU vyhlásenie o zhode je k dispozícii na tejto internetovej adrese: http://www.huf-group.com/eudoc

Suomi

Svenska

Ελληνική
Certifications

BMW Keyless Ride ID Device

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.

USA, Canada
Product name: BMW Keyless Ride ID Device
FCC ID: YGOHUF5750
IC: 4008C-HUF5750

⚠️ Any changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.
Declaration Of Conformity

We declare under our responsibility that the product

BMW Keyless Ride ID Device (Model: HUF5750)

complies 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)

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, 06/2002) 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 levels
     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 labeled with the CE marking:

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
Declaration of Conformity

Radio equipment tyre pressure control (RDC)


Technical information
Frequency Band: 433.895 - 433.945 MHz
Output Power: <10 mW e.r.p.

Manufacturer and Address
Manufacturer: Schrader Electronics Ltd.
Address: Technology Park, Antrim, N. Ireland BT41 1QS, United Kingdom

Austria

Belgium
Bulgaria
C настоящото Schrader Electronics Ltd. декларира, че този тип радиосъоръжение BC5A4 е в съответствие с Директива 2014/53/ЕС.
Цялостният текст на ЕС декларацията за съответствие може да се намери на следния интернет адрес:
http://www.tpmseuroshop.com/documents/declaration_conformities

Cyprus
Με την παρούσα ο/η Schrader Electronics Ltd., δηλώνει ότι ο ραδιοεξοπλισμός BC5A4 πληροί την οδηγία 2014/53/ΕΕ.
Το πλήρες κείμενο της δήλωσης συμμόρφωσης EE διατίθεται στην ακόλουθη ιστοσελίδα στο διαδίκτυο:
http://www.tpmseuroshop.com/documents/declaration_conformities

Czech Republic
Tímto Schrader Electronics Ltd. prohlašuje, že typ rádiového zařízení BC5A4 je v souladu se směrnicí 2014/53/EU.
Úplné znění EU prohlášení o shodě je k dispozici na této internetové adrese:
http://www.tpmseuroshop.com/documents/declaration_conformities

Germany
Der vollständige Text der EU-Konformitätsklärung ist unter der folgenden Internetadresse verfügbar:
http://www.tpmseuroshop.com/documents/declaration_conformities

Denmark
Hermed erklærer Schrader Electronics Ltd., at radioudstyrstypen BC5A4 er i overensstemmelse med direktiv 2014/53/EU.
EU-overensstemmelseserklæringens fulde tekst kan findes på følgende internetadresse:
http://www.tpmseuroshop.com/documents/declaration_conformities
Estonia
Käesolevaga deklareerib Schrader Electronics Ltd., et käesolev raadioseadme tüüp BC5A4 vastab direktiivi 2014/53/EL nõuetele. ELi vastavusdeklaratsiooni täielik tekst on kättesaadav järgmisel internetiaadressil:
http://www.tpmseuroshop.com/documents/declaration_conformities

Spain
Por la presente, Schrader Electronics Ltd. declara que el tipo de equipo radioeléctrico BC5A4 es conforme con la Directiva 2014/53/UE. El texto completo de la declaración UE de conformidad está disponible en la dirección Internet siguiente:
http://www.tpmseuroshop.com/documents/declaration_conformities

Finland
Schrader Electronics Ltd. vakuuttaa, että radiolaitetyyppi BC5A4 on direktiivin 2014/53/EU mukainen. EU-vaatimustenmukaisuusvakuutuksen täysimittainen teksti on saatavilla seuraavassa internetosoitteessa:
http://www.tpmseuroshop.com/documents/declaration_conformities

France
Le soussigné, Schrader Electronics Ltd., déclare que l’équipement radioélectrique du type BC5A4 est conforme à la directive 2014/53/UE. Le texte complet de la déclaration UE de conformité est disponible à l’adresse internet suivante:
http://www.tpmseuroshop.com/documents/declaration_conformities
United Kingdom
Hereby, Schrader Electronics Ltd. declares that the radio equipment type BC5A4 is in compliance with Directive 2014/53/EU.
The full text of the EU declaration of conformity is available at the following internet address: http://www.tpmseuroshop.com/documents/declaration_conformities

Greece
Με την παρούσα ο/η S chrader Electronics Ltd., δηλώνει ότι ο ραδιοεξοπλισμός BC5A4 πληροί την οδηγία 2014/53/ΕΕ.
Το πλήρες κείμενο της δήλωσης συμμόρφωσης ΕΕ διατίθεται στην ακόλουθη ιστοσελίδα στο διαδίκτυο:
http://www.tpmseuroshop.com/documents/declaration_conformities

Croatia
Schrader Electronics Ltd. ovime izjavljuje da je radijska oprema tipa BC5A4 u skladu s Direktivom 2014/53/EU.
Cjeloviti tekst EU izjave o sukladnosti dostupan je na sljedećoj internetskoj adresi:
http://www.tpmseuroshop.com/documents/declaration_conformities

Hungary
Schrader Electronics Ltd. igazolja, hogy a BC5A4 típusú rádióberendezés megfelel a 2014/53/EU irányelvnek.
Az EU-megfelelőségi nyilatkozat teljes szövege elérhető a következő internetes címen: http://www.tpmseuroshop.com/documents/declaration_conformities

Ireland
Hereby, Schrader Electronics Ltd. declares that the radio equipment type BC5A4 is in compliance with Directive 2014/53/EU.
The full text of the EU declaration of conformity is available at the following internet address: http://www.tpmseuroshop.com/documents/declaration_conformities
Italy
Il fabbricante, Schrader Electronics Ltd., dichiara che il tipo di apparecchiatura radio BC5A4 è conforme alla direttiva 2014/53/UE.
Il testo completo della dichiarazione di conformità UE è disponibile al seguente indirizzo Internet:
http://www.tpmseuroshop.com/documents/declaration_conformities

Lithuania
Aš, Schrader Electronics Ltd., patvirtinu, kad radio įrenginių tipas BC5A4 atitinka Direktyvą 2014/53/ES.
Visas ES atitikties deklaracijos tekstas prieinamas šiuo interneto adresu:
http://www.tpmseuroshop.com/documents/declaration_conformities

Luxembourg
Le soussigné, Schrader Electronics Ltd., déclare que l'équipement radioélectrique du type BC5A4 est conforme à la directive 2014/53/UE.
Le texte complet de la déclaration UE de conformité est disponible à l'adresse internet suivante:
http://www.tpmseuroshop.com/documents/declaration_conformities

Latvia
Ar šo Schrader Electronics Ltd. deklarē, ka radioiekārta BC5A4 atbilst Direktīvai 2014/53/ES.
Pilns ES atbilstības deklarācijas teksts ir pieejams šādā interneta vietnē:
http://www.tpmseuroshop.com/documents/declaration_conformities

Malta
B’dan, Schrader Electronics Ltd., niddikjara li dan it-tip ta’ taghmir tar-radju BC5A4 huwa konformi mad-Direttiva 2014/53/UE.
It-test kollu tad-dikjarazzjoni ta’ konformità tal-UE huwa disponibbli f’dan l-indirizz tal-Internet li ġej:
http://www.tpmseuroshop.com/documents/declaration_conformities
Netherlands
Hierbij verklaar ik, Schrader Electronics Ltd., dat het type radioapparatuur BC5A4 conform is met Richtlijn 2014/53/EU.
De volledige tekst van de EU-conformiteitsverklaring kan worden geraadpleegd op het volgende internetadres:
http://www.tpmseuroshop.com/documents/declaration_conformities

Poland
Schrader Electronics Ltd. niniejszym oświadcza, że typ urządzenia radiowego BC5A4 jest zgodny z dyrektywą 2014/53/UE.
Pełny tekst deklaracji zgodności UE jest dostępny pod następującym adresem internetowym:
http://www.tpmseuroshop.com/documents/declaration_conformities

Portugal
O(a) abaixo assinado(a) Schrader Electronics Ltd. declara que o presente tipo de equipamento de rádio BC5A4 está em conformidade com a Diretiva 2014/53/UE.
O texto integral da declaração de conformidade está disponível no seguinte endereço de Internet:
http://www.tpmseuroshop.com/documents/declaration_conformities

Romania
Prin prezenta, Schrader Electronics Ltd. declară că tipul de echipamente radio BC5A4 este în conformitate cu Directiva 2014/53/UE. Textul integral al declarației UE de conformitate este disponibil la următoarea adresă internet:
http://www.tpmseuroshop.com/documents/declaration_conformities

Sweden
Härmed försäkrar Schrader Electronics Ltd. att denna typ av radioutrustning BC5A4 överensstämmer med direktiv 2014/53/EU.
Den fullständiga texten till EU-försäkran om överensstämmelse finns på följande webbadress:
http://www.tpmseuroshop.com/documents/declaration_conformities
Slovenia
Schrader Electronics Ltd. potrjuje, da je tip radijske opreme BC5A4 skladen z Direktivo 2014/53/EU.
Celotno besedilo izjave EU o skladnosti je na voljo na naslednjem spletnem naslovu:
http://www.tpmseuroshop.com/documents/declaration_conformities

Slovakia
Schrader Electronics Ltd. týmto vyhlasuje, že rádiové zariadenie typu BC5A4 je v súlade so smernicou 2014/53/EÚ.
Úplné EU vyhlásenie o zhode je k dispozícii na tejto internetovej adrese:
http://www.tpmseuroshop.com/documents/declaration_conformities
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 expressly 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 intelligent emergency call


Technical information
Antenna internal:
- Frequency Band: 880 MHz - 915 MHz
  Radiated Power [TRP]: < 22 dBm
- Not accessible by user:
  - Frequency Band: 1710 MHz - 1785 MHz
    Radiated Power [TRP]: < 26 dBm
  - Frequency Band: 1920 MHz - 1980 MHz
    Radiated Power [TRP]: < 22 dBm
  - Frequency Band: 880 MHz - 915 MHz
    Radiated Power [TRP]: < 23 dBm

Manufacturer and Address
Manufacturer:
Robert Bosch Car Multimedia GmbH
Address: Robert Bosch Str. 200,
31139 Hildesheim, GERMANY

Austria
Der vollständige Text der EU-Konformitätserklärung ist unter der folgenden Internetadresse verfügbar: http://cert.bosch-carmultimedia.net/

Belgium
Le soussigné, Robert Bosch Car Multimedia GmbH, déclare que l'équipement radioélectrique du type TPM E-CALL EU est conforme à la directive 2014/53/UE.
Le texte complet de la déclaration UE de conformité est disponible à l'adresse internet suivante: http://cert.bosch-carmultimedia.net
Robert Bosch Car Multimedia GmbH declares, that this type of radio equipment TPM E-CALL EU is in accordance with Directive 2014/53/EC.
The full text of the EU declaration of conformity can be found at the following internet address: http://cert.bosch-carmultimedia.net/
Por la presente, Robert Bosch Car Multimedia GmbH declara que el tipo de equipo radioeléctrico TPM E-CALL EU es conforme con la Directiva 2014/53/UE. El texto completo de la declaración UE de conformidad está disponible en la dirección Internet siguiente: http://cert.bosch-carmultimedia.net


Hereby, Robert Bosch Car Multimedia GmbH declares that the radio equipment type TPM E-CALL EU is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: http://cert.bosch-carmultimedia.net

Croatia

Hungary

Ireland
Hereby, Robert Bosch Car Multimedia GmbH declares that the radio equipment type TPM E-CALL EU is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: http://cert.bosch-carmultimedia.net

Italy

Lithuania

Luxembourg
Latvia

Malta

Netherlands
Hierbij verklaar ik, Robert Bosch Car Multimedia GmbH, dat het type radioapparatuur TPM E-CALL EU conform is met Richtlijn 2014/53/EU. De volledige tekst van de EU-conformiteitsverklaring kan worden geraadpleegd op het volgende internetadres: http://cert.bosch-carmultimedia.net

Poland

Portugal
O(a) abaixo assinado(a) Robert Bosch Car Multimedia GmbH declara que o presente tipo de equipamento de rádio TPM E-CALL EU está em conformidade com a Diretiva 2014/53/UE. O texto integral da declaração de conformidade está disponível no seguinte endereço de Internet: http://cert.bosch-carmultimedia.net

Romania
Sweden
Härmed försäkrar Robert Bosch Car Multimedia GmbH att denna typ av radioutrustning TPM E-CALL EU överensstämmer med direktiv 2014/53/EU.
Den fullständiga texten till EU-försäkran om överensstämmelse finns på följande webbadress: http://cert.bosch-carmultimedia.net

Slovenia
Robert Bosch Car Multimedia GmbH potrjuje, da je tip radijske opreme TPM E-CALL EU skladen z Direktivo 2014/53/EU.
Celotno besedilo izjave EU o skladnosti je na voljo na naslednjem spletnem naslovu: http://cert.bosch-carmultimedia.net

Slovakia
Robert Bosch Car Multimedia GmbH týmto vyhlasuje, že rádiové zariadenie typu TPM E-CALL EU je v súlade so smernicou 2014/53/EÚ. Úplné EU vyhlásenie o zhode je k dispozícii na tejto internetovej adrese: http://cert.bosch-carmultimedia.net
Declaration of Conformity

Radio equipment anti-theft alarm (DWA)


Technical information
Frequency Band: 433.05-434.79 MHz
Output Power: 10 mW e.r.p.

Manufacturer and Address
Manufacturer: Meta System S.p.A.
Address: Via Galimberti 5
42124 Reggio Emilia - Italy –

Austria
Der vollständige Text der EU-Konformitätserklärung ist unter der folgenden Internetadresse verfügbar:
https://docs.metasystem.it/

Belgium
Le soussigné, Meta System S.p.A., déclare que l'équipement radioélectrique du type TXBMWMR est conforme à la directive 2014/53/UE.
Le texte complet de la déclaration UE de conformité est disponible à l'adresse internet suivante: https://docs.metasystem.it/

Bulgaria
С настоящото Meta System S.p.A. деклира, че този тип радиосъоръжение TXBMWMR е в съответствие с Директива 2014/53/ЕС.
Цялостният текст на ЕС декларацията за съответствие може да се намери на следния интернет адрес: https://docs.metasystem.it/
Cyprus
Με την παρούσα ο/η Meta System S.p.A.,
dηλώνει ότι ο ραδιοεξοπλισμός TXBMWMR
πληροί την οδηγία 2014/53/ΕΕ.
Το πλήρες κάμπου της δήλωσης συμμόρφωσης
ΕΕ δικτύου στην ακόλουθη ιστοσελίδα στο
https://docs.metasystem.it/

Czech Republic
Tímto Meta System S.p.A. prohlašuje, že typ
rádiového zařízení TXBMWMR je v souladu se
směrnicí 2014/53/EU.
Úplné znění EU prohlášení o shodě je k dispozici
na této internetové adrese:
https://docs.metasystem.it/

Germany
Hiermit erklärt Meta System S.p.A., dass der
Funkanlagentyp TXBMWMR der Richtlinie
2014/53/EU entspricht.
Der vollständige Text der EU-
Konformitätserklärung ist unter der folgenden
Internetadresse verfügbar:
https://docs.metasystem.it/

Denmark
Hermed erklærer Meta System S.p.A., at
radioudstyrstypen TXBMWMR er i
overensstemmelse med direktiv 2014/53/EU.
EU-overensstemmelseserklæringens fulde tekst
can findes på følgende internetadresse:
https://docs.metasystem.it/

Estonia
Käesolevaga deklareerib Meta System S.p.A., et
käesolev raadioseadme tüüp TXBMWMR vastab
direktivi 2014/53/EL nõuetele.
ELi vastavusdeklaratsiooni täielik tekst on
kättesaadav järgmisel internetiaadressil:
https://docs.metasystem.it/

Spain
Por la presente, Meta System S.p.A. declara que
el tipo de equipo radioeléctrico TXBMWMR es
conforme con la Directiva 2014/53/UE.
El texto completo de la declaración UE de
conformidad está disponible en la dirección
Internet siguiente: https://docs.metasystem.it/
Finland
EU-vaatimustenmukaisuusvakuutuksen täysimittainen teksti on saatavilla seuraavassa internetosoitteessa: https://docs.metasystem.it/

France
Le soussigné, Meta System S.p.A., déclare que l'équipement radioélectrique du type TXBMWMR est conforme à la directive 2014/53/UE.
Le texte complet de la déclaration UE de conformité est disponible à l'adresse internet suivante: https://docs.metasystem.it/

United Kingdom
Hereby, Meta System S.p.A. declares that the radio equipment type TXBMWMR is in compliance with Directive 2014/53/EU.
The full text of the EU declaration of conformity is available at the following internet address: https://docs.metasystem.it/

Greece

Croatia
Meta System S.p.A. ovime izjavljuje da je radijska oprema tipa TXBMWMR u skladu s Direktivom 2014/53/EU. Cjeloviti tekst EU izjave o sukladnosti dostupan je na sljedećoj internetskoj adresi: https://docs.metasystem.it/

Hungary
Meta System S.p.A. igazolja, hogy a TXBMWMR típusú rádióberendezés megfelel a 2014/53/EU irányelvnek. Az EU-megfelelőségi nyilatkozat teljes szövege elérhető a következő internetes címen: https://docs.metasystem.it/
Ireland
Hereby, Meta System S.p.A. declares that the radio equipment type TXBMWMR is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: https://docs.metasystem.it/

Italy
Il fabbricante, Meta System S.p.A., dichiara che il tipo di apparecchiatura radio TXBMWMR è conforme alla direttiva 2014/53/UE. Il testo completo della dichiarazione di conformità UE è disponibile al seguente indirizzo Internet: https://docs.metasystem.it/

Latvia

Luxembourg
Le soussigné, Meta System S.p.A., déclare que l’équipement radioélectrique du type TXBMWMR est conforme à la directive 2014/53/UE. Le texte complet de la déclaration UE de conformité est disponible à l’adresse internet suivante: https://docs.metasystem.it/

Malta
Netherlands
Hierbij verklaar ik, Meta System S.p.A., dat het type radioapparatuur TXBMWMR conform is met Richtlijn 2014/53/EU.
De volledige tekst van de EU-conformiteitsverklaring kan worden geraadpleegd op het volgende internetadres: https://docs.metasystem.it/

Poland
Meta System S.p.A. niniejszym oświadcza, że typ urządzenia radiowego TXBMWMR jest zgodny z dyrektywą 2014/53/UE.
Pełny tekst deklaracji zgodności UE jest dostępny pod następującym adresem internetowym: https://docs.metasystem.it/

Portugal
O(a) abaixo assinado(a) Meta System S.p.A. declara que o presente tipo de equipamento de rádio TXBMWMR está em conformidade com a Diretiva 2014/53/UE.
O texto integral da declaração de conformidade está disponível no seguinte endereço de Internet: https://docs.metasystem.it/

Romania
Prin prezenta, Meta System S.p.A. declară că tipul de echipamente radio TXBMWMR este în conformitate cu Directiva 2014/53/UE.
Textul integral al declarării UE de conformitate este disponibil la următoarea adresă internet: https://docs.metasystem.it/

Sweden
Den fullständiga texten till EU-försäkran om överensstämmelse finns på följande webbadress: https://docs.metasystem.it/

Slovenia
Celotno besedilo izjave EU o skladnosti je na voljo na naslednjem spletnem naslovu: https://docs.metasystem.it/
Slovakia
Meta System S.p.A. týmto vyhlasuje, že rádiové zariadenie typu TXBMWMR je v súlade so smernicou 2014/53/EÚ.
Úplné EU vyhlásenie o zhode je k dispozícii na tejto internetovej adrese:
https://docs.metasystem.it/
Certifications

**United Arab Emirates**
Product name: MCR, Model name: K48/K52/K61
TRA REGISTERED No: 0027793/10
DEALER No: 0014517/08

**USA, Canada**

**FCC WARNING**
Changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.

**NOTICE**
This equipment complies with FCC/IC radiation exposure limits set forth for uncontrolled equipment and meets the FCC radio frequency (RF) Exposure Guidelines in Supplement C to OET65 and RSS-102 of the IC radio frequency (RF) Exposure rules. This equipment has very low levels of RF energy that it deemed to comply without maximum permissive exposure evaluation (MPE). But it is desirable that it should be installed and operated with at least 20cm and more between the radiator and person’s body (excluding extremities: hands, wrists, feet and ankles).
Certifications

**Brazil**
Product name: MCR, Model name: K48/K52/K61

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.

**Mexico**
COFETEL RCPALPF10-0522
Product name: MCR, Model name: K48/K52/K61
Este equipo opera a título secundario, consecuentemente, debe aceptar interferencias perjudiciales incluyendo equipos de la misma clase y puede no causar interferencias a sistemas operando a título primario.

**Argentina**
CNC-ID 16-8765

**Malaysia**
Placeholder for certification label:
Certifications

**South Korea**

Name of applicant: Alpine Eletronics Inc. Japan  
Code of applicant: N25  
Model name: MCR K48/K52/K61  
Produced by: Alpine Electronics Manufacturing Of Europe, Ltd. Vendel Park, Budai utca 1, H-2051 Bitorbagy, Hungary

**Thailand**

This telecommunication equipment conforms to technical standard NTC technical.

**Singapore**

Complies with OA Standard DB105296

**Taiwan**

第十二条

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。

第十四条

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。
Certifications

Serbia

China

第十三条

进口和生产厂商在其产品的说明书或使用手册中，应刊印下述有关内容：

1. 标明附件中所规定的技术指标和使用范围，说明所有控制、调整及开关等使用方法：
   - 使用频率：2.4 – 2.4835 GHz
   - 等效全向辐射功率（EIRP）：天线增益<10dBi：≤100 mW 或≤20 dBm
   - 最大功率谱密度：天线增益<10dBi时：≤20 dBm / MHz (EIRP)
   - 载频容限：20 ppm
   - 带外发射功率（在2.4 - 2.4835 GHz频段以外）：≤-80 dBm / Hz (EIRP)

2. 不得擅自更改发射频率、加大发射功率（包括额外加装射频功率放大器），不得擅自外接天线或改用其它发射天线；
3. 使用时不得对各种合法的无线电通信业务产生有害干扰；一旦发现有干扰现象时，应立即停止使用，并采取措施消除干扰后方可继续使用；
4. 使用微功率无线电设备，必须忍受各种无线电业务的干扰或工业、科学及医疗应用设备的辐射干扰；
5. 不得在飞机和机场附近使用。
Declaration of Conformity

Radio equipment audio system


Technical information
Frequency Band: 2,400 GHz
Output Power: 4 dBm

Manufacturer and Address
Manufacturer: Alpine Electronics Inc
Address: 20-1, Yoshima Industrial Park, Iwaki, Fukushima 970-1192
Phone: + 81246 36 4111

Austria
Der vollständige Text der EU-Konformitätserklärung ist unter der folgenden Internetadresse verfügbar:
http://www.alpine.com/e/research/

Belgium
Le soussigné, Alpine Electronics Inc., déclare que l’équipement radioélectrique du type MRBE001A est conforme à la directive 2014/53/UE.
Le texte complet de la déclaration UE de conformité est disponible à l’adresse internet suivante: http://www.alpine.com/e/research/

Bulgaria
С настоящото Alpine Electronics Inc. декларира, че този тип радиосъоръжение MRBE001A е в съответствие с Директива 2014/53/ЕС. Цялостният текст на ЕС декларацията за съответствие може да се намери на следния интернет адрес: http://www.alpine.com/e/research/
Cyprus
Με την παρούσα ο/η Alpine Electronics Inc.,
dηλώνει ότι ο ραδιοεξοπλισμός MRBE001A
πληροί την οδηγία 2014/53/ΕΕ.
Το πλήρες κείμενο της δήλωσης συμμόρφωσης
ΕΕ διατίθεται στην ακόλουθη ιστοσελίδα στο
dιαδίκτυο: http://www.alpine.com/e/research/

Czech Republic
Tímto Alpine Electronics Inc. prohlašuje, že typ
rádiového zařízení MRBE001A je v souladu se
směrnicí 2014/53/EU.
Uplné znění EU prohlášení o shodě je k dispozici
na této internetové adrese:
http://www.alpine.com/e/research/

Germany
Hiermit erklärt Alpine Electronics Inc., dass der
Funkanlagentyp MRBE001A der Richtlinie
2014/53/EU entspricht.
Der vollständige Text der EU-
Konformitätserklärung ist unter der folgenden
Internetadresse verfügbar:
http://www.alpine.com/e/research/

Denmark
Hermed erklærer Alpine Electronics Inc., at
radioudstyrstypen MRBE001A er i
overensstemmelse med direktiv 2014/53/EU.
EU-overensstemmelseserklæringens fulde tekst
kan findes på følgende internetadresse:
http://www.alpine.com/e/research/

Estonia
Käesolevaga deklareerib Alpine Electronics Inc.,
et käesolev raadioseadme tüüp MRBE001A
vastab direktiivi 2014/53/EL nõuetele.
ELi vastavusdeklaratsiooni täielik tekst on
kättesaadav järgmisel internetiaadressil:
http://www.alpine.com/e/research/

Spain
Por la presente, Alpine Electronics Inc. declara
que el tipo de equipo radioeléctrico MRBE001A
es conforme con la Directiva 2014/53/UE.
El texto completo de la declaración UE de
conformidad está disponible en la dirección
Internet siguiente:
http://www.alpine.com/e/research/
Finland
Alpine Electronics Inc. vakuuttaa, että radiolaitetyyppi MRBE001A on direktiivin 2014/53/EU mukainen.
EU-vaatimustenmukaisuusvakuutuksen täysimittainen teksti on saatavilla seuraavassa internetosoitteessa:
http://www.alpine.com/e/research/

France
Le soussigné, Alpine Electronics Inc., déclare que l'équipement radioélectrique du type MRBE001A est conforme à la directive 2014/53/UE.
Le texte complet de la déclaration UE de conformité est disponible à l'adresse internet suivante: http://www.alpine.com/e/research/

United Kingdom
Hereby, Alpine Electronics Inc. declares that the radio equipment type MRBE001A is in compliance with Directive 2014/53/UE.
The full text of the EU declaration of conformity is available at the following internet address:
http://www.alpine.com/e/research/

Greece
Με την παρούσα ο/η Alpine Electronics Inc., δηλώνει ότι ο ραδιοεξοπλισμός MRBE001A πληροί την οδηγία 2014/53/ΕΕ.
Το πλήρες κείμενο της δήλωσης συμμόρφωσης ΕΕ διατίθεται στην ακόλουθη ιστοσελίδα στο διαδίκτυο: http://www.alpine.com/e/research/

Croatia
Alpine Electronics Inc. ovime izjavljuje da je radijska oprema tipa MRBE001A u skladu s Direktivom 2014/53/UE.
Cjeloviti tekst EU izjave o sukladnosti dostupan je na sljedećoj internetskoj adresi: http://www.alpine.com/e/research/

Hungary
Alpine Electronics Inc. igazolja, hogy a MRBE001A típusú rádióberendezés megfelel a 2014/53/EU irányelvnek.
Az EU-megfelelőségi nyilatkozat teljes szövege elérhető a következő internetes címen: http://www.alpine.com/e/research/
Ireland
Hereby, Alpine Electronics Inc. declares that the radio equipment type MRBE001A is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: http://www.alpine.com/e/research/

Italy

Lithuania

Luxembourg

Latvia
Ar šo Alpine Electronics Inc. deklarē, ka radioiekārta MRBE001A atbilst Direktīvai 2014/53/ES. Pilns ES atbilstības deklarācijas teksts ir pieejams šādā interneta vietnē: http://www.alpine.com/e/research/

Malta
Netherlands
Hierbij verklaar ik, Alpine Electronics Inc., dat het type radioapparatuur MRBE001A conform is met Richtlijn 2014/53/EU. De volledige tekst van de EU-conformiteitsverklaring kan worden geraadpleegd op het volgende internetadres:
http://www.alpine.com/e/research/

Poland
Alpine Electronics Inc. niniejszym oświadcza, że typ urządzenia radiowego MRBE001A jest zgodny z dyrektywą 2014/53/UE. Pełny tekst deklaracji zgodności UE jest dostępny pod następującym adresem internetowym:
http://www.alpine.com/e/research/

Portugal
O(a) abaixo assinado(a) Alpine Electronics Inc. declara que o presente tipo de equipamento de rádio MRBE001A está em conformidade com a Diretiva 2014/53/UE. O texto integral da declaração de conformidade está disponível no seguinte endereço de Internet:
http://www.alpine.com/e/research/

Romania
Prin prezentă, Alpine Electronics Inc. declară că tipul de echipamente radio MRBE001A este în conformitate cu Directiva 2014/53/UE. Textul integral al declarării UE de conformitate este disponibil la următoarea adresă internet:
http://www.alpine.com/e/research/

Sweden
Härmed försäkrar Alpine Electronics Inc. att denna typ av radioutrustning MRBE001A överensstämmer med direktiv 2014/53/EU. Den fullständiga texten till EU-försäkran om överensstämmelse finns på följande webbadress:
http://www.alpine.com/e/research/

Slovenia
Alpine Electronics Inc. potrjuje, da je tip radijske opreme MRBE001A skladen z Direktivo 2014/53/EU. Celotno besedilo izjave EU o skladnosti je na voljo na naslednjem spletnem naslovu:
http://www.alpine.com/e/research/
Slovakia
Alpine Electronics Inc. týmto vyhlasuje, že rádiové zariadenie typu MRBE001A je v súlade so smernicou 2014/53/EÚ.
Uplné EU vyhlásenie o zhode je k dispozícii na tejto internetovej adrese:
http://www.alpine.com/e/research/
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Details described or illustrated in this booklet may differ from the vehicle’s actual specification as purchased, the accessories fitted or the national-market specification. No claims will be entertained as a result of such discrepancies. Dimensions, weights, fuel consumption and performance data are quoted to the customary tolerances. The right to modify designs, equipment and accessories is reserved. Errors and omissions excepted.

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Important data for refuelling:

<table>
<thead>
<tr>
<th>Fuel</th>
<th>Recommended fuel grade</th>
<th>Alternative fuel grade</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Super unleaded (maximum 15% ethanol, E15)</td>
<td>Regular unleaded (power- and consumption-related restrictions) (maximum 15% ethanol, E10/E15)</td>
</tr>
<tr>
<td></td>
<td>95 ROZ/RON</td>
<td>91 ROZ/RON</td>
</tr>
<tr>
<td></td>
<td>90 AKI</td>
<td>87 AKI</td>
</tr>
</tbody>
</table>

| Usable fuel capacity        | approx. 25 l           |
| Reserve fuel                | approx. 4 l            |

**Tyre pressures**

| Tyre pressure, front       | 2.5 bar, tyre cold     |
| Tyre pressure, rear        | 2.9 bar, tyre cold     |

You can find further information on all aspects of your vehicle at:

bmw-motorrad.com

**BMW recommends**

Order No.: 01 40 1 603 431
08.2019, 3rd edition, 01