



**BMW
MOTORRAD**

RIDER'S MANUAL

R 18



MAKE LIFE A RIDE

Vehicle data

Model

Vehicle Identification Number

Colour code

Date of first registration

Registration number

Dealership details

Person to contact in Service department

Ms/Mr

Phone number

Dealership address/phone number (company stamp)

YOUR BMW.

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

About this rider's manual

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

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

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

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

BMW Motorrad.

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GENERAL INSTRUCTIONS

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4 GENERAL INSTRUCTIONS

QUICK & EASY REFERENCE

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

ABBREVIATIONS AND SYMBOLS

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

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

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

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

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

- Instruction.
- » Result of an activity.
-  Reference to a page with more detailed information.
- ◁ Indicates the end of a passage relating to specific accessories or items of equipment.
-  Tightening torque.

 Technical data.

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

- OA Optional accessories. You can obtain BMW Motorrad optional accessories through your authorised BMW Motorrad dealer; optional accessories have to be retrofitted to the vehicle.
- ABS Anti-lock brake system.
- ASC Automatic Stability Control.
- DWA Anti-theft alarm.
- EWS Electronic immobiliser.

EQUIPMENT

When you ordered your BMW Motorrad, you chose various items of custom 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, 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.

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

Internet

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

CERTIFICATES AND OPERATING LICENCES

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

DATA MEMORY

General

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

Personal reference

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

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Legal requirements for the disclosure of data

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

Operating data in the vehicle

Control units process data to operate the vehicle.

This includes, for example:

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

The data is only processed in the vehicle itself and is generally non-permanent. The data is not stored beyond the operating period.

Electronic components, for example control units, contain components for storing technical information. Information can be temporarily or perman-

ently 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

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or is located on a device that is connected to the vehicle, for example smartphone, USB stick, MP3 player. If this data is stored in the vehicle, the data can be deleted at any time.

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

Incorporation of mobile devices

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

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

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

Services

General

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

Services of the vehicle manufacturer

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

is exchanged using a secure connection, for example with the IT systems provided by the vehicle manufacturer.

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

Services from other providers

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

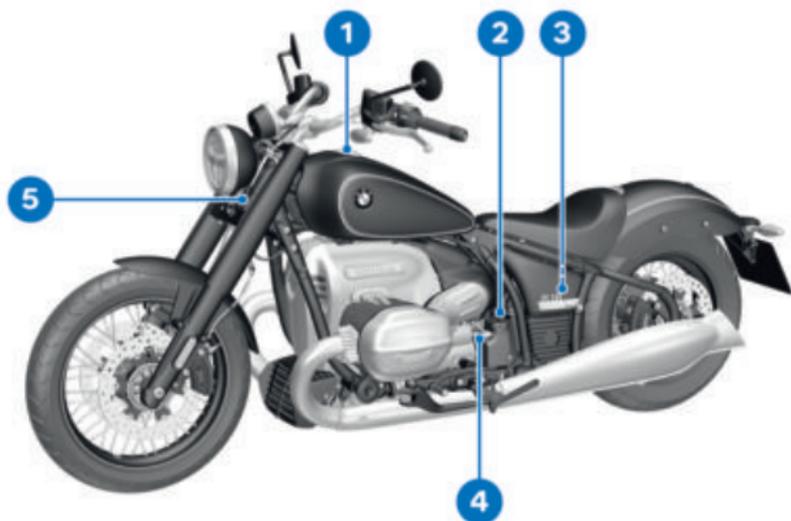
GENERAL VIEWS

02

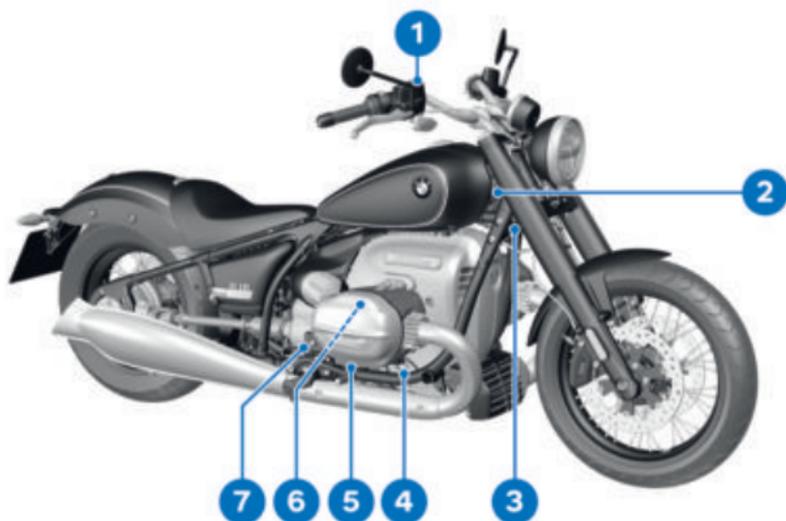
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GENERAL VIEW, LEFT SIDE



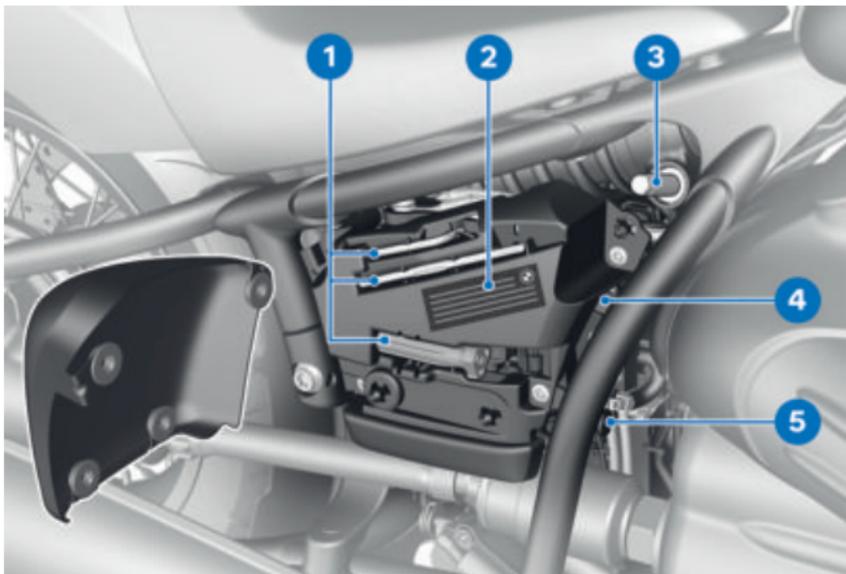
- 1 Fuel filler neck (➡ 91)
- 2 Power socket (➡ 144)
- 3 Tyre pressure table (behind the side trim panel) (➡ 111)
Disengage diagnostic socket (behind fairing bracket) (➡ 141)
- 4 Reverser (➡ 66)
- 5 Type plate

GENERAL VIEW, RIGHT SIDE

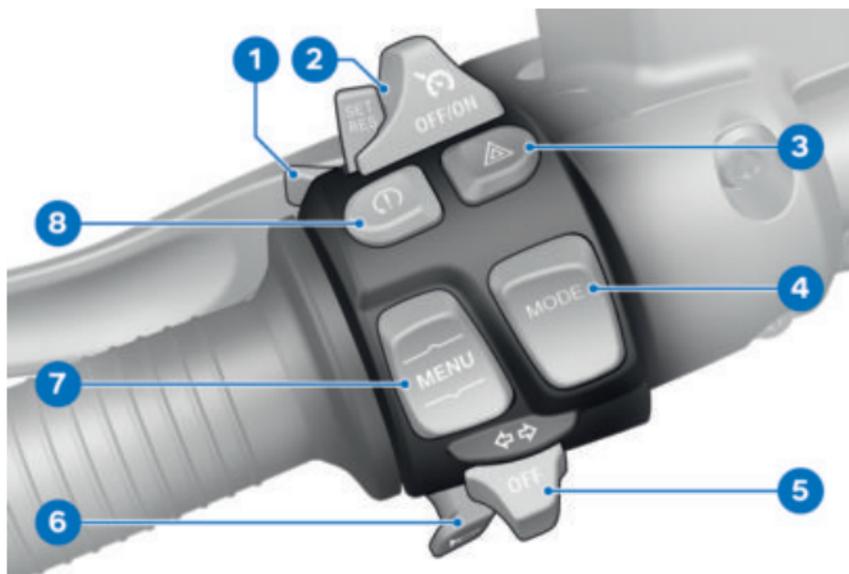
- 1** Brake-fluid reservoir, front
(➡ 118)
- 2** Steering lock (➡ 40)
- 3** Vehicle Identification
Number
- 4** Engine oil level indicator
(➡ 113)
- 5** Remote ground terminal
(➡ 133)
- 6** Oil filler opening (under
the cylinder head cover)
(➡ 114)
- 7** Brake-fluid reservoir, rear
(➡ 119)

16 GENERAL VIEWS

BEHIND THE SIDE TRIM PANEL, RIGHT



- 1 Toolkit (▮▮▮ 110)
- 2 Payload table
- 3 Adjusting spring preload for rear wheel (▮▮▮ 75)
- 4 Replacing fuses (▮▮▮ 139)
- 5 Remote positive terminal (▮▮▮ 133)

MULTIFUNCTION SWITCH, LEFT

- 1 High-beam headlight and headlight flasher (➡ 45)
- 2 Adaptive cruise control (➡ 62)
- 3 Hazard warning lights (➡ 47)
- 4 Riding mode (➡ 61)
- 5 Turn indicators (➡ 48)
- 6 Horn
- 7 MENU rocker button (➡ 49)
- 8 ASC (➡ 60)

18 GENERAL VIEWS

MULTIFUNCTION SWITCH, RIGHT



- 1 Heated grips (➡ 67)
- 2 Ignition (➡ 41)
- 3 Emergency-off switch (kill switch) (➡ 44)
- 4 Starter button (➡ 85)
-with reverser^{OE}
Reverser (➡ 66)

INSTRUMENT CLUSTER

- 1** Speedometer
- 2** Indicator and warning lights (➡ 22)
- 3** Photosensor (for adapting the brightness of the instrument lighting)
Indicator light
DWA (➡ 58)
Keyless Ride (➡ 41)
- 4** Multifunction display (➡ 23)

STATUS INDICATORS

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22 STATUS INDICATORS

INDICATOR AND WARNING LIGHTS



- 1 ABS (►►► 33)
- 2 High-beam headlight (►►► 45)
- 3 Daytime riding light (►►► 46)
- 4 Warning light, drive malfunction (►►► 31)
- 5 Neutral indicator light
- 6 Adaptive cruise control (►►► 62)
- 7 ASC (►►► 33)
- 8 Turn indicators (►►► 48)
- 9 General warning light
Displayed in combination with warning symbols in the multifunction display (►►► 24)

MULTIFUNCTION DISPLAY

- 1 Value
- 2 Riding mode (►► 61)
- 3 Unit
On-board computer
(►► 49)
- 4 Gear indicator
Status
Warning symbol
Displayed in combination
with the 'General' warning
light (►► 24)

24 STATUS INDICATORS

WARNING INDICATORS

Mode of presentation

Warnings are indicated by the corresponding warning lights. If two or more warnings occur at the same time, all the appropriate warning lights and warning symbols appear. The possible warnings are listed on the next pages.



Warnings that do not have warning lights of their own are indicated by a warning symbol **1** appearing in the multifunction display in combination with 'General' warning light **2**. The 'General' warning light either shows steadily or flashes, depending on the urgency of the warning.



Acknowledging warnings

Button **1** has to be pressed as acknowledgement of a warning.

The display that was active beforehand does not reappear until warning **2** has been acknowledged.

If two or more warnings are present, button **1** has to be pressed to proceed to and acknowledge each warning **2** in turn.



Calling up active warnings

Repeatedly short-press button **1** until **WARN** is displayed. Along with the warning **4**, the number of warnings **3** is displayed as well.

Press button **2** to call up the next warning **4** in the sequence.

26 STATUS INDICATORS

Warnings, overview

Indicator and warning lights	Display text	Meaning
 lights up.	 is displayed.	Electronic immobiliser active (▣▣▣▶ 29)
 lights up.	 is displayed.	Radio-operated key out of range (▣▣▣▶ 29)
 lights up.	 is displayed.	Replace battery of radio-operated key (▣▣▣▶ 29)
 flashes.	 is displayed.	Engine temperature too high (▣▣▣▶ 29)
 lights up.	 is displayed.	Engine in emergency-operation mode (▣▣▶ 30)
 flashes.	 is displayed.	Engine warning (▣▣▣▶ 31)
 lights up.		Drive malfunction (▣▣▣▶ 31)
 flashes.	 is displayed.	Serious drive malfunction (▣▣▶ 31)
 flashes.		
 lights up.	 is displayed.	Voltage of the vehicle electrical system too low (▣▣▣▶ 32)
 lights up.	 is displayed.	Voltage of the vehicle electrical system critical (▣▣▶ 32)

Indicator and warning lights	Display text	Meaning
 lights up.	 is displayed.	Bulb faulty (▬▬▬ 32)
 flashes.		ABS self-diagnosis not completed (▬▬▬ 33)
 lights up.		ABS fault (▬▬▬ 33)
 quick-flashes.		ASC intervention (▬▬▬ 33)
 flashes.		ASC self-diagnosis not completed (▬▬▬ 34)
 lights up.		ASC switched off (▬▬▬ 34)
 lights up.		ASC fault (▬▬▬ 34)
	 is displayed.	Anti-theft alarm battery flat (▬▬▬ 34)
 lights up.	 is displayed in combination with distance counter for reserve fuel KM R, or, as applicable, MI R.	Fuel down to reserve (▬▬▬ 35)
	 is displayed.	Hill Start Control active (▬▬▬ 35)
 lights up.	 flashes.	Hill Start Control automatically deactivated (▬▬▬ 36)

28 STATUS INDICATORS

Indicator and warning lights	Display text	Meaning
	 flashes.	Hill Start Control cannot be activated (→ 36)
	 is displayed.	Service due (→ 36)
 lights up.	 is displayed.	Service overdue (→ 36)

Electronic immobiliser active

lights up.



is displayed.

Possible cause:

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

- Remove all other vehicle keys from the same ring as the vehicle key being used.
- Have the fault ignition key replaced, preferably by an authorised BMW Motorrad retailer.

Radio-operated key out of range

lights up.



is displayed.

Possible cause:

Communication between radio-operated key and engine electronics is disrupted.

- Check the battery in the radio-operated key.
- Replace the battery of the radio-operated key (▣▣▣ 42).
- Use the spare key to continue your journey.

- Battery of the radio-operated key is empty or loss of the radio-operated key (▣▣▣ 42).
- Remain calm if the warning symbol appears while you are riding. You can continue your journey, the engine will not switch off.
- Have the faulty radio-operated key replaced by an authorised BMW Motorrad retailer.

Replace battery of radio-operated key

lights up.



is displayed.

Possible cause:

- The integral battery in the radio-operated key has lost a significant proportion of its original capacity. There is no assurance of how long the radio-operated key can remain operational.
- Replace the battery of the radio-operated key (▣▣▣ 42).

Engine temperature too high

flashes.



is displayed.

30 STATUS INDICATORS



ATTENTION

Riding with overheated engine

Engine damage

- Compliance with the information set out below is essential.

Possible cause:

The temperature sensor has detected a high temperature in the engine.

- If possible, ride in the part-load range to cool down the engine.
 - » Available engine output is reduced.
 - » If engine temperature is very high when the vehicle is at a standstill, after approximately five minutes the engine shuts down automatically to prevent overheating. The engine can be restarted after the automatic shutdown. The engine is shut down under the following preconditions:
 - Side stand is extended.
 - Brake is not applied.
 - Throttle grip is in idle position.
- If the engine oil temperature is frequently too high, have the fault rectified as soon as possible by a specialist work-

shop, preferably an authorised BMW Motorrad Retailer.

Engine in emergency-operation mode



lights up.



is displayed.



WARNING

Unusual ride characteristics when engine running in emergency-operation mode

Risk of accident

- Avoid accelerating sharply and overtaking.

Possible cause:

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

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

Engine warning

flashes.



is displayed.

**WARNING****Engine damage when running in emergency-operation mode**

Risk of accident

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

Possible cause:

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

- Avoid high load and rpm ranges if possible.
 - Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad retailer.
- » It is possible to continue to ride but not recommended.

Drive malfunction

lights up.

Possible cause:

The engine control unit has diagnosed a fault that affects pollutant emissions and/or reduces power.

- Have the fault rectified by a specialist workshop, preferably an authorised BMW Motorrad retailer.
- » You can continue riding; pollutant emissions are higher than the threshold values.

Serious drive malfunction

flashes.



flashes.



is displayed.

Possible cause:

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

- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad retailer.
- » It is possible to continue to ride but not recommended.

32 STATUS INDICATORS

Voltage of the vehicle electrical system too low



lights up.



is displayed.

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 individual consumers.

Possible cause:

Too many consumers are 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 warmers).

Voltage of the vehicle electrical system critical



lights up.



is displayed.



WARNING

Failure of the vehicle systems

Risk of accident

- Do not continue your journey.

Possible cause:

Alternator faulty, battery 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 retailer.

Bulb faulty



lights up.



is displayed.



WARNING

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

Safety risk

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

Possible cause:

One or more bulbs faulty.

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

ABS self-diagnosis not completed



flashes.

Possible cause:



ABS self-diagnosis not completed

The ABS function is not available, because self-diagnosis did not complete. (The motorcycle has to reach a defined minimum speed with the engine running for the wheel sensors to be checked: min 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 function and the Dynamic Brake Control function have failed. The ABS function is not available.

- You can continue to ride the vehicle, but make due provision for the fact that the affected functions are not available. Bear in mind the more detailed information on situations that can lead to an ABS fault (➔ 101).
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad retailer.

ASC intervention



quick-flashes.

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

34 STATUS INDICATORS

ASC self-diagnosis not completed



flashes.

Possible cause:



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 with the engine running for the wheel sensors to be checked: min 5 km/h)

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

ASC switched off



lights up.

Possible cause:

The rider has switched off the ASC.

- Switch on ASC (►► 61).

ASC fault



lights up.

Possible cause:

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

- You can continue to ride. Bear in mind that the ASC function and dynamic engine brake control are not available. Bear in mind the more detailed information on situations that can lead to an ASC fault (►► 102).
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad retailer.

Anti-theft alarm battery flat

–with anti-theft alarm (DWA) ^{OE}



is displayed.



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.

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

Fuel reserve

The amount of fuel remaining in the fuel tank when the low-fuel warning light comes on depends on riding dynamics. The more the fuel moves inside the fuel tank (due to frequent changes in angle of lean, frequent braking and acceleration), the more difficult it becomes to determine the reserve volume of fuel remaining in the tank. For this reason, the reserve volume of fuel cannot be displayed exactly.

 As soon as the low-fuel warning light comes on, the $KM R$ or, as applicable, the $MI R$ reading for the distance that can potentially be covered with the fuel still on board appears and counts down. The distance that can still be travelled using the reserve volume of fuel depends on the style of riding (fuel consumption) and the amount of fuel left in the tank. After a refuelling stop, the distance counter for reserve fuel is reset if the amount of fuel in the tank is greater than the reserve quantity.

Fuel down to reserve



lights up.



is displayed in combination with distance counter for reserve fuel $KM R$ or, as applicable, $MI R$.



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.



Fuel reserve

approx. 4 l

- Refuel (➡ 92).

Hill Start Control active



is displayed.

Possible cause:

Hill Start Control (➡ 106) has been activated by the rider.

- Switch off Hill Start Control.

36 STATUS INDICATORS

Hill Start Control automatically deactivated



lights up.



flashes.

Possible cause:

Hill Start Control has been automatically deactivated.

- Side stand has been extended.
 - » Hill Start Control is deactivated when the side stand is extended.
- Engine has been switched off.
 - » Hill Start Control is deactivated when the engine is switched off.

Hill Start Control cannot be activated



flashes.

Possible cause:

Hill Start Control cannot be activated.

- Retract the side stand.
 - » Hill Start Control is operational only with the side stand retracted.
- Start the engine.
 - » Hill Start Control is operational only while the engine is running.

Service due



is displayed.

Possible cause:

Service is due, because of either distance covered or time expired.

- Have your motorcycle serviced regularly by a specialist workshop, preferably an authorised BMW Motorrad retailer.
 - » The vehicle remains operationally reliable and road-worthy.
 - » The vehicle retains its value.

Service overdue



lights up.



is displayed.

Possible cause:

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

- Have your motorcycle serviced regularly by a specialist workshop, preferably an authorised BMW Motorrad retailer.
 - » The vehicle remains operationally reliable and road-worthy.
 - » The vehicle retains its value.

SERVICE DISPLAY



When a service is due within one month, symbol for service due **4** and service due date **3** are displayed. The **SERV** display **2** has to be acknowledged by pressing button **1**.



When a service is due within 1000 km, symbol for service due **4** and countdown distance **3** are displayed and the countdown proceeds in steps of 100 km. The **SERV** display **2** has to be acknowledged by pressing button **1**.

 The date saved in the instrument cluster must be adjusted if the service display appears more than one month prior to the service date. This situation may occur if the battery has been disconnected from the vehicle.

OPERATION

04

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40 OPERATION

STEERING LOCK

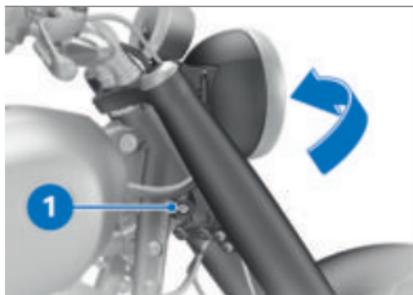
Locking the steering lock

WARNING

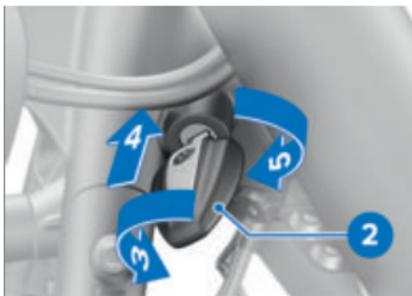
Restricted steering angle when steering lock engaged

Risk of falling

- Unlock the steering lock before attempting to pull away.
- Before pulling away, remove the key from the steering lock.

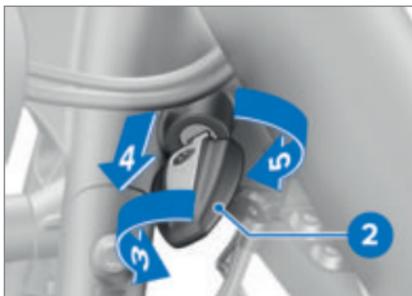


- Turn the handlebars all the way to the left and insert the ignition key into steering lock **1**.



- Turn ignition key **2** counter-clockwise **3** in the steering lock.
 - Use ignition key **2** to push the steering lock in **4** and hold it in this position.
 - Turn ignition key **2** clockwise **5**.
- » Steering lock is engaged.
- Remove ignition key **2**.

Unlocking steering lock



- Turn ignition key **2** counter-clockwise **3** in the steering lock.
- » The steering lock is disengaged **4**.
- Turn ignition key **2** clockwise **5**.

- Remove ignition key **2**.

IGNITION

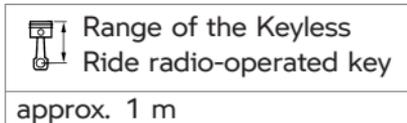
Radio-operated key

 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 information on the electronic immobiliser (EWS) ( 44). Ignition and anti-theft alarm system work with the radio-operated key. Steering lock and fuel filler cap are locked and unlocked manually.

 The vehicle cannot be started while the radio-operated key is out of range. If the radio-operated key remains out of range the ignition is switched off after about 1.5 minutes to protect the battery. It is advisable to keep the radio-operated key on your person (e.g. in a jacket pocket)

and to have the emergency key with you as an alternative.



Switching on ignition

Requirement

Radio-operated key is within range.



- Press button **1**.
 - » Side lights and all function circuits are switched on.
 - » Engine can be started. –with daytime riding light^{OE}
 - » Daytime riding light is switched on.◁
 - » Pre-Ride-Check is performed. ( 86)
 - » ABS self-diagnosis is in progress. ( 86)
 - » ASC self-diagnosis is performed. ( 87)

42 OPERATION

Switching off ignition

Requirement

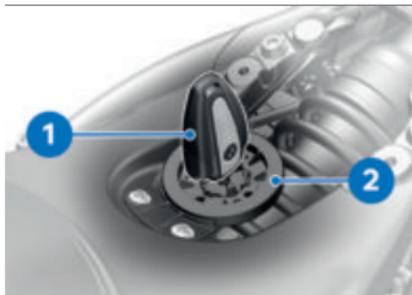
Radio-operated key is within range.



- Press button **1**.

» Lights and all function circuits are switched off.

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



- If a key is lost or mislaid, consult the notes on the electronic immobiliser (EWS).
- If you happen to lose or mislay the radio-operated key while on a journey, you can start the vehicle with the spare key.

- If the battery of the radio-operated key is empty, the vehicle can be started by simply inserting the folded radio-operated key into the ring aerial under the seat.
- Remove the rider's seat (►► 68).
- Insert the spare key or folded-in radio-operated key with the empty battery **1** into ring aerial **2**.



The spare key or the closed radio-operated key with the empty battery **must be inserted into** the opening in the ring aerial.



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

30 s

- » Pre-Ride-Check is performed.
- Key has been recognised.
- Engine can be started.
- Install the rider's seat (►► 69).
- Start the engine (►► 85).

Replacing battery of radio-operated key

Requirement

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



is displayed.



DANGER

Swallowing a battery

Risk of injury or death

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

- Change the battery.



- Press button **1**.

» Key bit flips out.

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



ATTENTION

Unsuitable or incorrectly inserted batteries

Component damage

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



Battery type

For Keyless Ride radio-operated key

CR 2032

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

44 OPERATION

Electronic immobiliser (EWS)

The on-board electronics access the data saved in the ignition key via a ring aerial. The engine control unit will not permit the engine to be started unless the key is identified as "authorised".

 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 starting 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 an ignition key, you can have it barred by your authorised BMW Motorrad retailer.

If you wish to do this, you will need to bring all other keys for the motorcycle with you. The engine cannot be started by a barred key, but a key that has been barred can subsequently be reactivated.

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

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

Emergency-off switch (kill switch)



- 1 Emergency-off switch (kill switch)



WARNING

Operation of the kill switch while riding

Risk of fall due to rear wheel locking

- Do not operate the kill switch when riding.

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



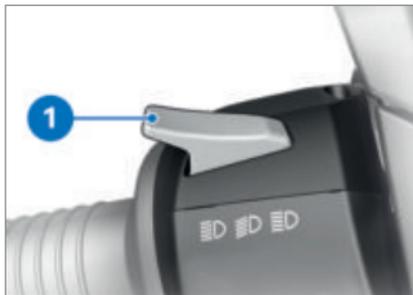
- A** Engine switched off
B Normal operating position (run)

 You cannot start the engine unless the kill switch is in the run position.

LIGHTING

Low-beam headlight

- Switch on the ignition (▣▣▣ 41).
- Start the engine (▣▣▣ 85).



- Alternatively: pull switch **1** when ignition switched on.
 » The low-beam headlight is switched on.

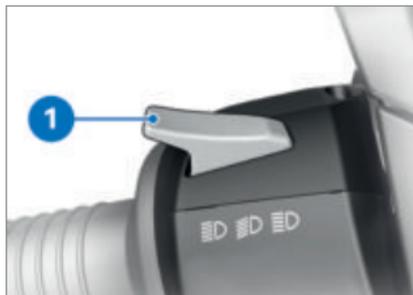
Side light

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

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

High-beam headlight and headlight flasher

- Switch on the ignition (▣▣▣ 41).

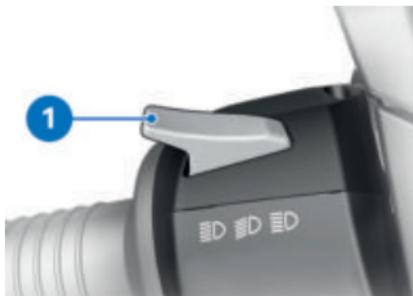


- Push switch **1** forward to switch on the high-beam headlight.
- Pull switch **1** back to operate the headlight flasher.

Headlight courtesy delay feature

- Switch off the ignition (▣▣▣ 42).

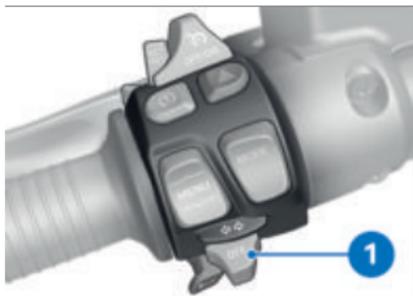
46 OPERATION



- Immediately after switching off the ignition, pull switch **1** back and hold it in that position until the headlight courtesy delay feature comes on.
 - » The vehicle's lights come on for one minute and then switch off automatically.
 - This can be used to light up the path to the house door after the vehicle has been parked, for example.

Parking lights

- Switch off the ignition (▮▮▮▮ 42).



- 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.

Automatic daytime riding light

–with daytime riding light^{OE}

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

WARNING

The automatic daytime riding light is not a substitute for the rider's personal judgement of the light conditions

Risk of accident

- Switch off the automatic daytime riding light in poor light conditions.
- Switch on the ignition (▮▮▮▮ 41).



- Repeatedly short-press button **1** until **SETUP ENTER** is displayed.
 - Long-press button **2** to open **SETUP**.
- » **SET DRL A** is displayed.



- Short-press button **2** to change the set value. The following settings are available:
 - **DRL A ON**: Automatic daytime riding light is activated.
 - **DRL A OFF**: Automatic daytime riding light is deactivated.
 - Long-press button **1** to exit **SET DRL A**.
- » **SETUP ENTER** is displayed.

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



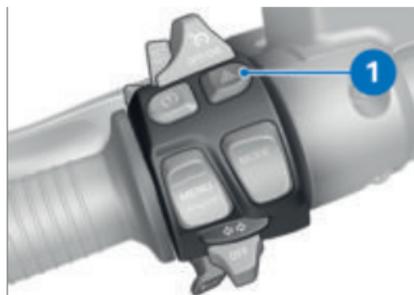
lights up.

Hazard warning lights



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

- Switch on the ignition (➡ 41).



- Press button **1** to switch on the hazard warning lights system.
- » Ignition can be switched off.
- To switch off the hazard warning flashers, switch

48 OPERATION

on the ignition and press button **1** again.

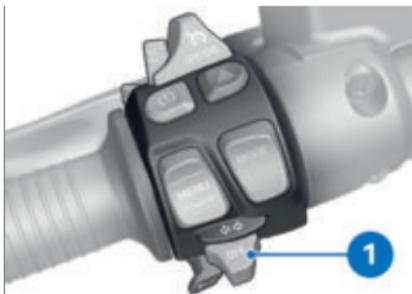
Turn indicators

- Switch on the ignition (☰▶▶▶ 41).



- 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.
- Press button **1** to switch off the turn indicator.

Comfort turn indicator



If button **1** has been pressed to the right or left, the turn indicators are automatically switched off under the following circumstances:

- Speed below 30 km/h: after 50 m distance covered.
- Speed between 30 km/h and 100 km/h: after a speed-dependent distance covered or in case of acceleration.
- Speed over 100 km/h: after five flashes.

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 display



Requirement

The vehicle is at a standstill.

- Switch on the ignition (→ 41).
 - » The on-board computer readings appear on the display.
- Repeatedly short-press button **1** until the desired value is displayed.

Possible displays:

- Odometer reading: KM
- Trip distance recorder 1: KM 1
- Automatic trip distance recorder: KM A is reset automatically when 6 hours have elapsed after the ignition was

switched off and the date has changed.

- Distance ridden after fuel down to reserve: KM R, selectable only after the fuel level has dropped to the reserve volume.
- Average speed: ØKM/H
- Vehicle voltage: VOLT
- Date: DD.MM.
- Average fuel consumption: ØL/100
- Current fuel consumption: L/100, when vehicle at standstill: L/H
- Clock: H:M
- Engine speed: RPM

50 OPERATION

- Countdown distance to next service due: `SERV`, selectable only when next service due within 1000 km or service is overdue.
- Service due date: `SERV`, selectable only when next service is due within one month or service is overdue.
- Active warnings: `WARN`, selectable only when warnings are active.
- Call up the menu for settings:
`SETUP ENTER`
- Configure displays (▣→ 57).

Resetting trip distance recorder

- Switch on the ignition (▣▣▣▣ 41).



- Repeatedly short-press button **1** until the trip distance recorder you want to reset **3** is displayed.
- Press and hold down button **2** until trip distance recorder **3** is reset.

Resetting average values

- Switch on the ignition (▣▣▣▣ 41).



- Repeatedly short-press button **1** until the average value you want **3** is displayed.

- Press and hold down button **2** until the average value you want **3** is reset.

52 OPERATION

SETTINGS IN THE INSTRUMENT CLUSTER

Selecting SETUP

Requirement

The vehicle is at a standstill.



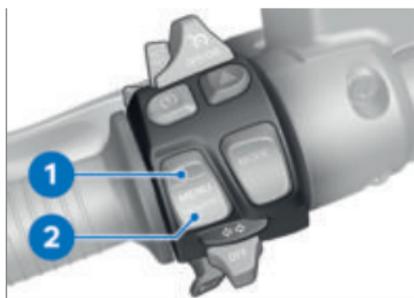
- Repeatedly short-press button **1** until **SETUP ENTER 3** is displayed.
- Long-press button **2** to start **SETUP**.
- Short-press button **1** to step through the sequence of parameters in **SETUP** as follows:
 - with daytime riding light^{OE}
 - Activate **DRL A ON** or deactivate **DRL A OFF** automatic daytime riding light.◀
 - Adjust the brightness of the backlighting in the instrument cluster **BRIGHT**.
 - with Hill Start Control^{OE}
 - Activate Hill Start Control **HSC ON** or deactivate it **HSC OFF**.◀
 - with anti-theft alarm (DWA)^{OE}
 - Automatically activate anti-theft alarm function when

the ignition is switched off **DWA ON** or leave the automatic function switched off **DWA OFF**.◀

- Set the time **CLOCK**.
- Set the date **DATE**.
- Configure displays **SET DISPLAY**.
- Set units **UNIT**.
- Reset displays **RESET**.
- Exit **SETUP** menu **SETUP EXIT**.

Exiting SETUP Requirement

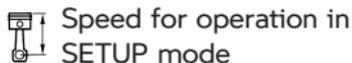
There are four ways of exiting **SETUP**.



- Long-press button **1**.
 - » **SETUP ENTER** is displayed.
 - » Settings were saved.
- Alternatively: Repeatedly short-press button **1** until **SETUP EXIT** is displayed.
- Long-press button **2**.
 - » **SETUP ENTER** is displayed.
 - » Settings were saved.
- Alternatively: Switch the ignition off and then on again.

» SETUP exited and settings not saved.

- Alternatively, ride away.



Speed for operation in
SETUP mode

max 10 km/h

» If permissible maximum speed for operation is exceeded, SETUP is exited and the settings are not saved.

» KM is displayed.

Resetting SETUP

- Switch on the ignition.
- Select SETUP (▣▣▣ 52).



- Repeatedly short-press button 1 until SETUP RESET is displayed.
- Press and hold down button 2 until RESET 3 flashes.

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

» SETUP EXIT is displayed.

- Exit SETUP (▣▣▣ 52).

Setting clock



WARNING

Adjusting the clock when riding

Risk of accident

- Set the clock only when the motorcycle is stationary.

- Switch on the ignition (▣▣▣ 41).



- Repeatedly short-press button 1 until SETUP ENTER is displayed.
- Long-press button 2 to open SETUP.
- Repeatedly short-press button 1 until SET CLOCK is displayed.

54 OPERATION



- Press and hold down button **2** until hours number **3** flashes.
- Short-press button **1** to increase the hours number by one.
- Short-press button **2** to reduce the hours number by one.
- » The hours are set.
- Press and hold down button **2** until minutes number **4** flashes.
- Short-press button **1** to increase the minutes number by one.
- Short-press button **2** to reduce the minutes number by one.
- » The minutes are set.
- Press and hold down button **2** until the minutes number stops flashing.
- » The clock is set.
- Long-press button **1** to exit SET CLOCK.
- » SETUP ENTER is displayed.

Setting date

- Switch on the ignition (▣▣▣ 41).



- Repeatedly short-press button **1** until SETUP ENTER is displayed.
- Long-press button **2** to open SETUP.
- Repeatedly short-press **1** until SET DATE is displayed.



- Press and hold down button **2** until day number **3** flashes.
- Short-press button **1** to increase the day number by one.
- Short-press button **2** to reduce the day number by one.
- » The day is set.

- Press and hold down button **2** until month number **4** flashes.
- Short-press button **1** to increase the month number by one.
- Short-press button **2** to reduce the month number by one.
- » The month is set.
- Press and hold down button **2** until SET YEAR is displayed.



- Short-press button **1** to increase year number **5** by one.
- Short-press button **2** to reduce year number **5** by one.
- Press and hold down button **2** until the year stops flashing.
- » The year is set.
- Long-press button **1** to exit SET YEAR.
- » The date is set.
- » SETUP ENTER is displayed.

Adjusting the brightness of the backlighting

Requirement

The vehicle is at a standstill.

- Switch on the ignition (▣▣▣ 41).
- Select SETUP (▣▣▣ 52).



- Repeatedly short-press button **1** until SET BRIGHT **3** is displayed.
- Repeatedly press button **2** until the backlighting reaches the brightness you want.
- Exit SETUP (▣▣▣ 52).

Setting units

Requirement

The vehicle is at a standstill.

- Switch on the ignition (▣▣▣ 41).
- Select SETUP (▣▣▣ 52).

56 OPERATION



- Repeatedly short-press button **1** until SET UNIT ENTER is displayed.
- Long-press button **2** to activate SET UNIT.
- Short-press button **1** to step through the sequence of parameters in SET UNIT as follows:

- without Canada export^{NV}
- Change speedometer unit between KM/H and MPH◁
- without Canada export^{NV}
- Change distance recorder unit between KM and MI◁
- Change fuel consumption display between L/100, MPG and KM/L
- Change clock display between 24H and 12H
- Change date format between DMY and MDY

- Repeatedly short-press button **2** until the unit you want **3** is selected.
- If you want to exit setup, repeatedly press button **1** until SET UNIT EXIT is displayed.
- Long-press button **2** to exit SET UNIT.
 - » SETUP RESET is displayed.



- If you want to restore the factory defaults, repeatedly short-press button **1** until SET UNIT RESET is displayed.
- Long-press button **2** until RE-SET **3** flashes.
 - » Units have been reset to the factory setting.

- » SET UNIT EXIT is displayed.
- Long-press button **2** to exit SET UNIT.
- » SETUP RESET is displayed.

Configuring displays

Requirement

The vehicle is at a standstill.

- Switch on the ignition (▣▣▣ 41).
- Select SETUP (▣▣▣ 52).



- Repeatedly short-press button **1** until SET DISPLAY ENTER is displayed.
- Long-press button **2** to activate SET DISPLAY.



- Press button **2** to switch display OFF or ON.

- Press button **1** to select display **3**.
- » The following displays can be deactivated:
 - Trip distance recorder reading
 - Automatic trip distance
 - Average speed
 - On-board voltage
 - Date
 - Average consumption
 - Current consumption
 - Clock
 - Engine speed
- If you want to exit setup, repeatedly press button **1** until SET DISPLAY EXIT is displayed.
- Long-press button **2** to exit SET DISPLAY.
- » SET UNIT ENTER is displayed.



- If you want to restore the factory defaults, repeatedly short-press button **1** until SET DISPLAY RESET is displayed.
- Long-press button **2** until RE-SET **3** flashes.

58 OPERATION

- » Displays have been reset to the factory default.
- » SET DISPLAY EXIT is displayed.
- Long-press button **2** to exit SET DISPLAY.
- » SET UNIT ENTER is displayed.

ANTI-THEFT ALARM (DWA)

–with anti-theft alarm (DWA)^{OE}

Activating DWA

- Switch on the ignition (▣▣▣▣ 41).
- Adjust the DWA settings (▣▣▣▣ 60).
- Switch off the ignition.
 - » If the alarm system (DWA) is activated, the DWA will be armed automatically when you switch off the ignition.
 - » Activation takes approximately 30 seconds to complete.
- Turn indicators flash twice.
- » Anti-theft alarm (DWA) is active.



- Switch off the ignition.

- Press button **1** on the radio-operated key twice.
 - » Activation takes approximately 30 seconds to complete.
 - » Turn indicators flash twice.
 - » Anti-theft alarm is active.



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

Alarm signal

A DWA alarm can be triggered by:

- Motion sensor
- An attempt to use an unauthorised ignition 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 - acoustic alarm only, the turn indicators do not flash).

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

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

The alarm signal continues for approx. 26 seconds. While a DWA alarm is in progress an acoustic alarm sounds and the turn indicators flash. The type of acoustic alarm can be set by an authorised BMW Motorrad retailer.



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

If a DWA 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 DWA alarm for one minute.

Light signals issued by the indicator light:

- 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

60 OPERATION

Deactivating DWA

- Switch on the ignition (▣▣▣ 41).



- Short-press button 1.
 - » Turn indicators flash once.
 - » DWA is switched off.

Adjusting DWA settings

- Switch on the ignition (▣▣▣ 41).
- Select SETUP (▣▣▣ 52).



- Repeatedly short-press button 1 until SET DWA is displayed.
- Short-press button 2 to change the set value.

The following settings are available:

- DWA ON: The DWA anti-theft alarm is active and will be

armed automatically when the ignition is switched off.

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

- Long-press button 1 to exit SET DWA.

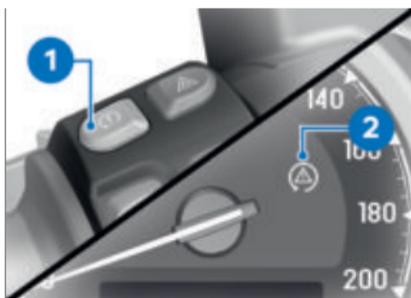
» SETUP ENTER is displayed.

AUTOMATIC STABILITY CONTROL (ASC)

Switching off ASC

- Switch on the ignition (▣▣▣ 41).

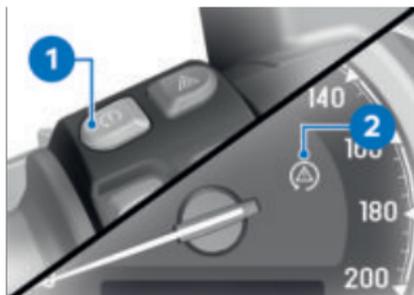
 You have the option of deactivating the ASC function while the motorcycle is on the move.



- Press and hold down button 1 until ASC indicator and warning light 2 changes its status.  starts to show.

» ASC is switched off.

Switching on ASC



- Press and hold down button **1** until ASC indicator and warning light **2** changes its status.

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

» ASC is switched on.

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



If the ASC indicator and warning light remains on even though the vehicle has accelerated past the minimum speed stated below after the ignition was switched off and then on again, an ASC fault has occurred.

min 5 km/h

RIDING MODE

Using riding modes

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

- RAIN: Riding on rain-wet roads.
- ROLL: Riding on dry roads.
- ROCK: Dynamic riding on dry roads.

The optimum interplay of engine characteristic, ASC control and dynamic engine brake control is provided for each of these scenarios.

For more information on the riding modes, see the section entitled "Engineering details" (▣▣▣▣ 103).

Selecting riding mode

- Switch on the ignition (▣▣▣▣ 41).



- Press button **1**.

62 OPERATION

- » The current riding mode **2** is displayed.



- Repeatedly press button **1** until the riding mode you want **2** is displayed.
 - » With the vehicle at a standstill, the selected mode is activated after approximately 2 seconds.
 - » The following conditions must be satisfied for activation of a new riding mode while riding:
 - Throttle grip is in idle position.
 - Brake is not applied.
 - with cruise control^{OE}
 - » additionally on vehicles with cruise control:
 - The cruise-control system is deactivated.◁
 - » The selected riding mode is retained with the engine-characteristic, ASC and dynamic engine brake control adaptations even after the ignition has been switched off.

ADAPTIVE CRUISE CONTROL

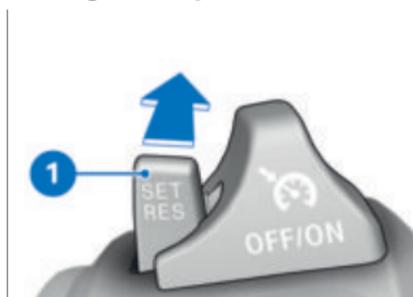
–with cruise control^{OE}

Switching on cruise control



- Slide switch **1** to the right.
 - » Button **2** is enabled for operation.

Setting road speed



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

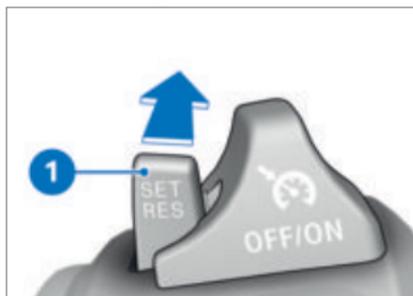
 Adjustment range for cruise control (gear-dependent)

20...180 km/h

 lights up.

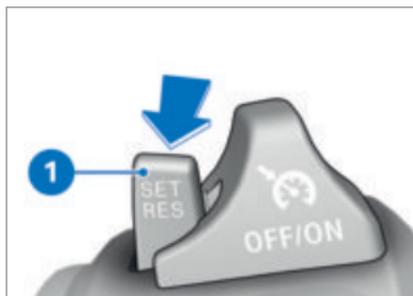
- » The motorcycle maintains your current cruising speed and the setting is saved.

Accelerating



- Short-push button **1** forward.
 - » Speed is increased by approx. 1 km/h each time you push the button.
- Push button **1** forward and hold it in this position.
 - » The vehicle accelerates smoothly.
 - » The current speed is maintained and saved if button **1** is not pushed again.

Decelerating



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

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

- Push button **1** back and hold it in this position.
 - » The vehicle decelerates smoothly.
 - » The current speed is maintained and saved if button **1** is not pushed again.

Deactivating cruise control

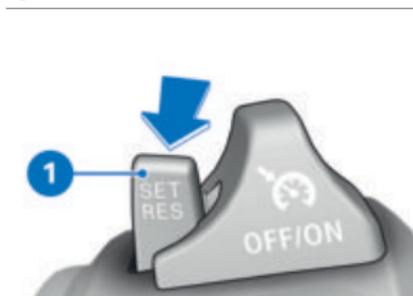
- Brake, pull the clutch lever or turn the throttle grip (close the throttle by turning the grip back past the idle position) to deactivate cruise control.

 For safety reasons, cruise control is automatically deactivated when an ASC intervention occurs.

- » Indicator light for cruise control goes out.

64 OPERATION

Resuming former cruising speed

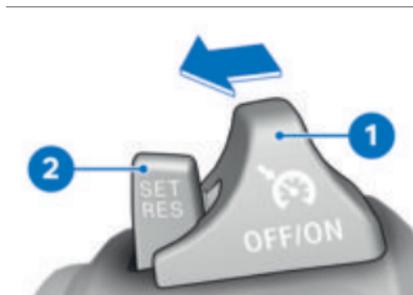


- Short-push button **1** back to return to the speed saved beforehand.

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

 lights up.

Switching off cruise control



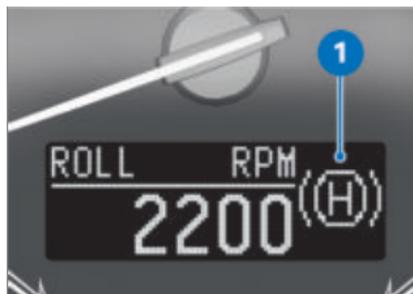
- Slide switch **1** to the left.
» The system is deactivated.

» Button **2** is disabled.

HILL START CONTROL

—with Hill Start Control^{OE}

Display



Symbol **1** for Hill Start Control shows in the status field.

Switching Hill Start Control on or off

- Switch on the ignition (▬▬▬ 41).
- Select SETUP (▬▬▬ 52).



- Repeatedly short-press button **1** until SET HSC is displayed.
- Short-press button **2** to change the set value.

The following settings are available:

- HSC ON: Hill Start Control is activated.
 - HSC OFF: Hill Start Control is deactivated.
 - Long-press button **1** to exit SET HSC.
- » SETUP ENTER is displayed.

Operating Hill Start Control Requirement

Vehicle stationary and upright, engine running. Hill Start Control is switched on.



ATTENTION

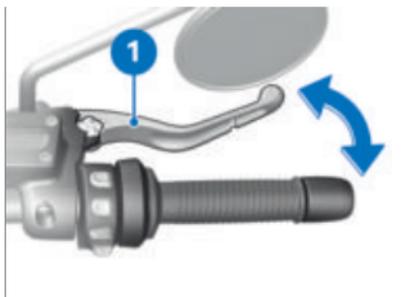
Failure of Hill Start Control

Risk of accident

- Apply the brakes manually to hold the vehicle.



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



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



is displayed.

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



disappears.

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



On pullaway or when the reverser is activated, Hill Start Control is automatically deactivated.



disappears as soon as the brake is fully released.

- » Hill Start Control is deactivated.
- For more information on Hill Start Control, see the section

66 OPERATION

entitled "Engineering details" (106).

REVERSER

–with reverser^{OE}

General information

The following prerequisites must have been met to be able to use the reverser:

- Motorcycle at standstill.
- Engine running.
- Brake applied.
- Transmission in idle.
- Side stand has been retracted.
- Clutch is not disengaged.

Reverse without passenger.

On uphill/downhill gradients the reverser cannot guarantee the vehicle is held, as would be the case if a gear were engaged.

Do not use the reverser on excessive uphill/downhill gradients.



Uphill/downhill gradient
for reverser

max 20 %

Activating the reverser



- Turn selector lever **1** to the **R** position.
 - » Gear indicator **2** switches from N to R.
 - » You can use the reverser as soon as the "R" indicator stops flashing.

Using the reverser



- Release the brake.
- Press and hold starter button **1** to reverse.

Automatic termination

Reversing is cancelled automatically:

- On excessive uphill/downhill gradients
- In the event of obstructions
- If the reversing motor has overheated
- If the side stand has been extended
- If the front brake is operated

If reversing is cancelled, the "R" in the display flashes.

Deactivating the reverser



- Turn selector lever **1** to the **F** position.

 Depending on the gradient of the roadway, tensions can build up in the drivetrain. The selector lever might be difficult to move.

- To relieve strain in the drivetrain, apply the front brake and compress the front suspension by pushing forward on the handlebars.

- Turn selector lever **1** to the **F** position.
- » Gear indicator **2** switches from R to N.

HEATED GRIPS

- with heated grips^{OE}

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

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

- Start the engine (▶▶▶ 85).



- Repeatedly press button **1** until desired heating stage **2** is displayed.

68 OPERATION

The following settings are available:



Heating off



Low heating power



Medium heating power



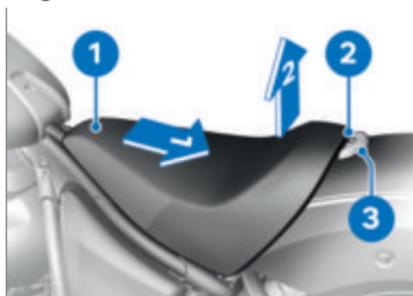
High heating power

- » High heating power is for heating the grips quickly: it is advisable to switch back to a lower heating power as soon as the grips are warm.
- » If you allow a certain length of time to pass without making further changes, the selected heating stage is saved and the grip-heating symbol disappears.

RIDER'S SEAT

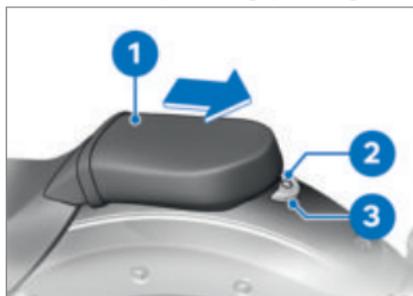
Removing rider's seat

—without two-up riding package^{OE}



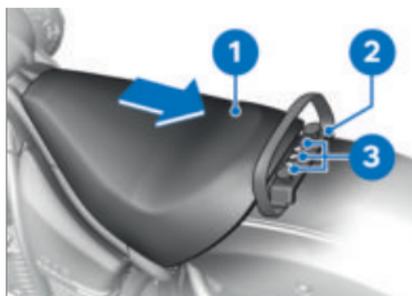
- Make sure the ground is level and firm and place the motorcycle on its stand.
- Remove screw **2**.
- Remove holder **3**.
- Pull rider's seat **1** to the rear and remove.◁

—with two-up riding package^{OE}



- Make sure the ground is level and firm and place the motorcycle on its stand.
- Remove screw **2**.
- Remove holder **3**.

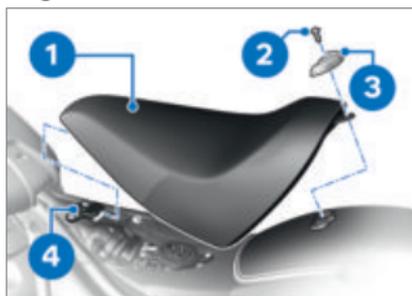
- Pull passenger seat **1** to the rear and remove.



- Remove screws **3**.
- Remove retainer **2**.
- Pull rider's seat **1** to the rear and remove.◁

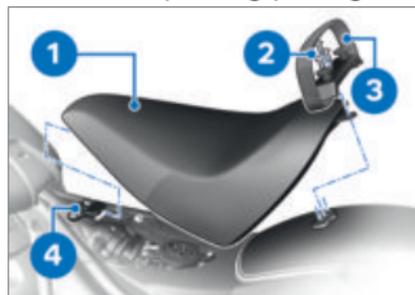
Installing rider's seat

–without two-up riding package^{OE}

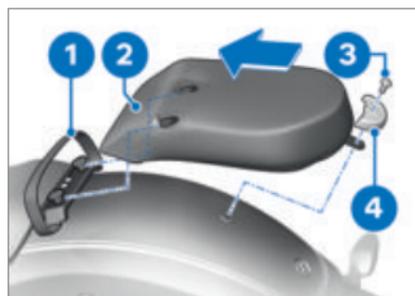


- Insert rider's seat **1** into mount **4**.
- Manoeuvre rider's seat **1** into position at rear and install holder **3** with screw **2**.◁

–with two-up riding package^{OE}



- Insert rider's seat **1** into mount **4**.
- Manoeuvre rider's seat **1** into position at rear and install retainer **3** with screws **2**.



- Position passenger seat **2** in retainer **1**.
- Manoeuvre passenger seat **2** into position at rear and install holder **4** with screw **3**.◁

ADJUSTMENT

05

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CLUTCH	73
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SPRING PRELOAD	75
GEARSHIFT LEVER	76

72 ADJUSTMENT

MIRRORS

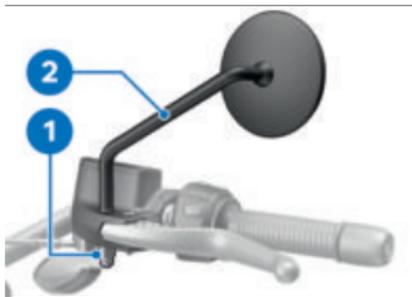
Adjusting mirrors



- Turn the mirror to the appropriate position.

 If the mirror's range of adjustment is not enough to permit correct alignment, the position of the mirror arm has to be changed accordingly.

Adjusting mirror arm



- Use the tool from the on-board toolkit to slacken nut **1**.
- Turn mirror arm **2** to the appropriate position.
- Tighten nut **1**, while holding mirror arm **2** to ensure that

it does not move out of position.

 Mirror to handlebar fitting

M8

12 Nm

HEADLIGHT

Headlight beam throw and spring preload

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

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

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

Adjusting headlight beam throw



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

- Loosen nut **3**.
- Loosen nut **2**.
- » Headlight **1** can be tilted through its range of adjustment.
- Adjust beam throw by tilting headlight **1** slightly about its horizontal axis.
- Secure the headlight in position by tightening nut **2**.
- Tighten nut **3**.

When the motorcycle is again ridden with a lower load:

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

CLUTCH

Adjusting clutch lever



WARNING

Relocated clutch-fluid reservoir

Air in the clutch system

- Do not turn the handlebars or the handlebar fitting on the handlebar.



WARNING

Adjusting the clutch lever while riding

Risk of accident

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



- Applying light pressure from behind, turn adjuster knob **1** to the desired position.



The adjusting screw can be turned more easily if the clutch lever is pushed forward.

74 ADJUSTMENT

- » Adjustment options:
- From position 1: Narrowest span between handlebar grip and clutch lever
- To position 5: Widest span between handlebar grip and clutch lever

BRAKES

Adjusting handbrake lever



WARNING

Relocated brake fluid tank

Air in the brake system

- Do not turn the handlebars or the handlebar fitting on the handlebar.



WARNING

Adjusting the handbrake lever while riding

Risk of accident

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



- Applying light pressure from behind, turn adjuster knob **1** to the desired position.



The adjusting screw is easier to turn when the handbrake lever is pushed forward.

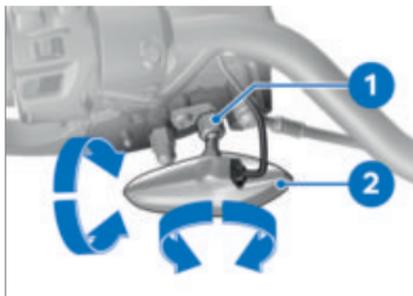
- » Adjustment options:
- From position 1: Narrowest span between handlebar grip and handbrake lever
- To position 5: Widest span between handlebar grip and handbrake lever

TURN INDICATORS

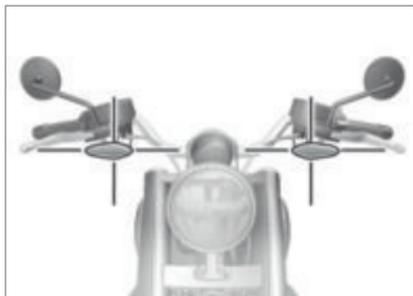
Aligning turn indicators



The turn indicators are secured by a nut with left-hand thread. Turn the nut clockwise to loosen and counter-clockwise to tighten.



- Slacken nuts with left-hand thread **1** on left and right.
- » Turn indicators **2** move freely.



- Align the turn indicators horizontally and vertically at right angles to the vehicle's longitudinal axis.
- Tighten nuts with left-hand thread **1** on left and right.

SPRING PRELOAD

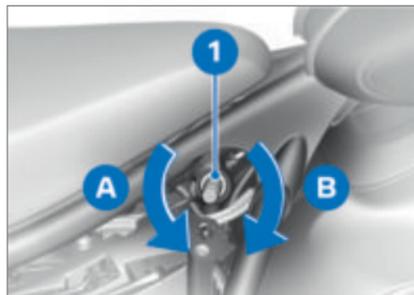
Adjustment

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

spring preload accordingly when the motorcycle is lightly loaded.

Adjusting spring preload for rear wheel

- Remove the side trim panel (→ 111).



ATTENTION

Incorrect setting

Damage to adjustment mechanism

- Do not exceed the adjustment range of max. 26 turns (to the stop).
- To increase spring preload, turn hexagon head **1** with the tool from the on-board toolkit clockwise in direction **B**.
- To reduce spring preload, turn hexagon head **1** with the tool from the on-board toolkit counter-clockwise in direction **A**.

76 ADJUSTMENT



Basic setting of the rear spring preload

Turn hexagon head as far as it will go counter-clockwise. (filled up, with driver's weight of approx. 85 kg)

Turn hexagon head as far as it will go counter-clockwise, then 6 turns in clockwise direction. (One-up with load of approx. 110 kg)

Turn hexagon head as far as it will go counter-clockwise, then 24 turns in clockwise direction. (Two-up with load of approx. 200 kg)

–If the load differs from the base settings, increase spring preload 2 full turns for every 10 kg of extra weight.

- Install the side trim panel (→ 111).

GEARSHIFT LEVER

Adjusting gearshift lever

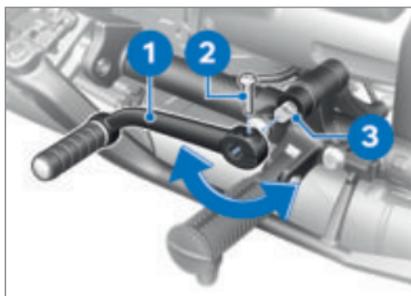


ATTENTION

Unintentional operation of the gearshift lever

Damage to the gearbox

- Check that the gearshift lever is in the correct position.
- Make sure that the gearshift lever is under no load except when gearshifting is in progress.



- Remove screw **2**.
- Disengage gearshift lever **1** from gearshift shaft **3**.
- Hold gearshift lever **1** in the desired position relative to the gearshift shaft and push it on to gearshift shaft **3**.
- Install screw **2**.



Gearshift lever to selector shaft

M6 x 25

 Gearshift lever to selector shaft

8 Nm

Adjusting shift rocker

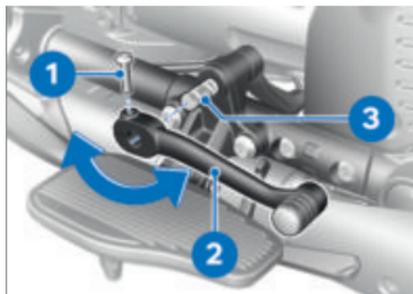
–with footboard^{OE}

ATTENTION

Unintentional operation of the gearshift lever

Damage to the gearbox

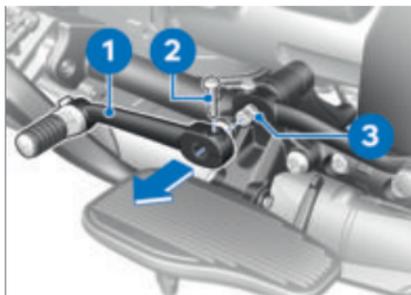
- Check that the gearshift lever is in the correct position.
- Make sure that the gearshift lever is under no load except when gearshifting is in progress.



- Remove screw **1**.
- Disengage rear gearshift lever **2** from gearshift shaft **3**.
- Hold rear gearshift lever **2** in the desired position relative to the gearshift shaft and push it on to gearshift shaft **3**.
- Check the freedom of movement of the rear gearshift lever.

If the gearshift lever touches the exhaust cover when operated:

- Correct the setting of the rear gearshift lever.
- Install screw **1**.



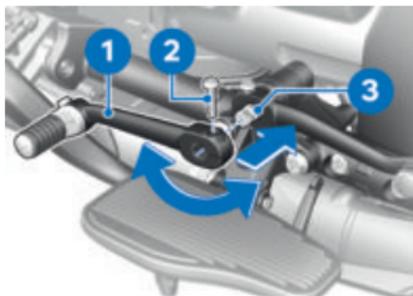
- Remove screw **2** and disengage front gearshift lever **1** from gearshift shaft **3**.

 Gearshift lever to selector shaft

M6 x 25

8 Nm

78 ADJUSTMENT



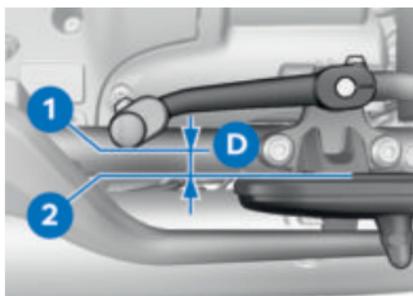
- Hold front gearshift lever **1** in the desired position relative to the gearshift shaft and push it on to gearshift shaft **3**.
- Install screw **2**.



Gearshift lever to selector shaft

M6 x 25

8 Nm



- Note minimum distance **D** between lower edge of peg **1** and upper edge of footboard **2** of min 25 mm.
- Adjust the peg (⇨ 78).

Adjusting peg

–with footboard^{OE}

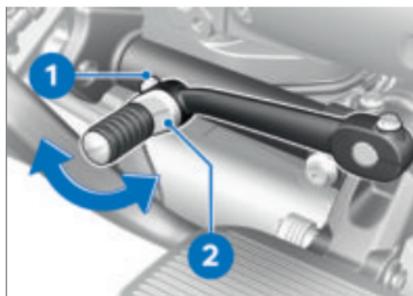


ATTENTION

Unintentional operation of the gearshift lever

Damage to the gearbox

- Check that the gearshift lever is in the correct position.
- Make sure that the gearshift lever is under no load except when gearshifting is in progress.



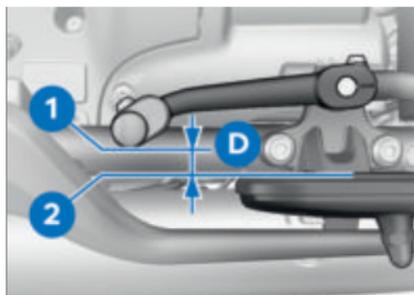
- Slacken screw **1**.
- Turn peg **2** to the desired position.
- Tighten screw **1**.



Foot plate eccentric to gearshift lever

M6 x 25

8 Nm



- Note minimum distance **D** between lower edge of peg **1** and upper edge of footboard **2** of min 25 mm.

RIDING

06

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PARKING YOUR MOTORCYCLE	91
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SECURING MOTORCYCLE FOR TRANSPORTATION	94

SAFETY INFORMATION

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 retailer will be happy to advise you on the correct clothing for every purpose.



WARNING

Loose textiles, items of luggage or straps snagged by open rotating parts of the vehicle (wheels, drive shaft)

Risk of accident

- Make sure that loosely worn or carried textiles cannot be snagged by openly rotating parts of the vehicle.
- Keep all items of luggage and straps well clear of openly rotating parts of the vehicle.

Loading correctly



WARNING

Handling adversely affected by overloading and imbalanced loads

Risk of falling

- Do not exceed the permissible gross weight and be sure to comply with the instructions on loading.
- Adjust spring preload and tyre pressures to suit total weight.
- Pack heavy items at the bottom and toward the inboard side.

Speed

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

- Spring-strut and shock-absorber system not set up correctly
- Imbalanced load
- Loose clothing
- Insufficient tyre pressure
- Poor tyre tread
- Etc.

Risk of poisoning

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

**WARNING****Exhaust gases adversely affecting health**

Risk of asphyxiation

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

**WARNING****Inhalation of harmful vapours**

Health hazard

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

Risk of burning**CAUTION****Engine and exhaust system become very hot when the vehicle is in use**

Risk of burning

- Always wear helmet, suit, gloves and boots.
- While riding and when you park the vehicle, make sure that no-one and no objects 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.

When load status changes:

- Adjust the spring preload for the rear wheel (▮▮▮▮▶ 75).

Always before riding off

- Unlock the steering lock (▮▮▮▮▶ 40).
- Check operation of the brake system (▮▮▮▮▶ 116).
- Check operation of the lights and signalling equipment.
- Check operation of the clutch (▮▮▮▮▶ 120).
- Check the tyre tread depth (▮▮▮▮▶ 121).

- Check the tyre pressures (▣▣▣ 120).
- Check security of luggage.

Every 3rd refuelling stop

- Check the engine oil level (▣▣▣ 113).
- Check the brake pad thickness, front brakes (▣▣▣ 116).
- Check the brake pad thickness, rear brakes (▣▣▣ 117).
- Check the brake-fluid level, front brakes (▣▣▣ 118).
- Check the brake-fluid level, rear brakes (▣▣▣ 119).

STARTING

Starting engine

- Switch on the ignition (▣▣▣ 41).
 - » Pre-Ride-Check is performed. (▣▣▣ 86)
 - » ABS self-diagnosis is in progress. (▣▣▣ 86)
 - » ASC self-diagnosis is performed. (▣▣▣ 87)
- Pull the clutch lever.

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

 To ensure rapid operational readiness of the catalytic converter, idle speed

is increased for a short time after engine start.

 To ensure starting capability at high engine temperatures, idle speed after engine start is increased for a brief period.



- Press starter button 1.

 The start attempt is automatically interrupted if battery voltage is too low. Recharge the battery before you start the engine, or use jump leads and a donor battery to start.

See the subsection on jump starting in "Maintenance" for more details.

- » The engine starts.
- » Consult the troubleshooting chart below if the engine refuses to start. (▣▣▣ 154)

86 RIDING

Pre-Ride-Check

When the ignition is switched, on the instrument cluster carries out a test of the instruments, the indicator and warning lights and the display, the "Pre-Ride-Check". The test is aborted if you start the engine before it completes.

Phase 1



All indicator and warning lights **2** are switched on.

Phase 2

Speedometer needle **3** swings to the maximum-speed position.

The drive malfunction indicator lamp goes out.

Phase 3

Speedometer needle **3** moves to the zero position. The indicator and warning lights **2** go out or assume operational status, as applicable.

Active warnings and service-due messages appear in the display **1**.

After active warnings and service-due messages have been acknowledged, the on-board computer appears in the display **1**.

If the needle did not move, an indicator or warning light did not show or segments in the display failed to light up:

- 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 with the engine running for the wheel sensors to be checked: min 5 km/h)

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

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

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.



flashes.

Phase 2

» Pullaway test of the system components with diagnostic capability.



flashes.

ASC self-diagnosis completed

» The ASC indicator and warning light goes out.

- Observe 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)

88 RIDING

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 and dynamic engine brake control are not available.
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad retailer.

RUNNING IN

Engine

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



Load condition for running in

no full load (Odometer reading max. 1000 km)

- Comply with the running-in speeds.



Running-in speed

max 4000 min⁻¹ (Odometer reading max. 1000 km)

- Note the mileage after which the running-in check should be carried out.



Running-in check

500...1200 km

Brake pads

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



WARNING

New brake pads

Longer stopping distance, risk of accident

- Apply the brakes in good time.

Tyres

New tyres have a smooth surface. This must be roughened by riding in a restrained manner at various heel angles until the tyres are run in. Only once the surface

has been roughened can the tyres 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.

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 sudden-stop 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.



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.

Emergency braking

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

If you brake until your speed is less than 15 km/h, the hazard warning lights start to flash as well. The hazard warning

90 RIDING

lights switch off automatically as soon as you start to accelerate and vehicle speed reaches 20 km/h.

Descending mountain passes



WARNING

Braking mostly with the rear brake on mountain descents

Brake fade, destruction of the brakes due to overheating

- Use both front and rear brakes, and make use of the engine's braking effect as well.



DANGER

Riding with overheated brakes

Risk of accident due to failure of brakes

- Adapt your riding style accordingly.
- Avoid frequent braking by using the engine brake.



WARNING

Failure to observe service intervals

Risk of accident

- Observe the valid service intervals for brakes.

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

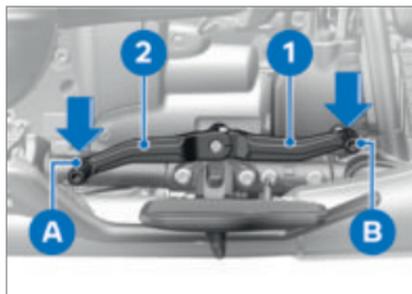
- Apply the brakes lightly while riding to remove wetness and dirt, or dismount and clean the brakes.
- Think ahead and brake in good time until full braking efficiency is restored.

SHIFTING WITH SHIFT ROCKER

–with footboard^{OE}

Operating shift rocker

 With footboards installed, gearshifts are performed by means of a shift rocker.



- Downshifting: Press gearshift lever **2** down at position **A**.
- Upshifting: Press gearshift lever **1** down at position **B**.

PARKING YOUR MOTORCYCLE

Side stand

- Switch off the engine.

ATTENTION

Poor ground underneath the stand

Risk of damage to parts if vehicle topples

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

ATTENTION

Additional weight placing strain on the side stand

Risk of damage to parts if vehicle topples

- Do not sit or lean on the vehicle while it is propped on the side stand.
- Extend the side stand and prop the motorcycle on the stand.
- If the camber of the roadway permits, turn the handlebars all the way to the left.
- On a gradient, the motorcycle should always face uphill; select 1st gear.

REFUELLING

Fuel grade Requirement

For optimum fuel consumption, fuel should be sulphur-free or as low-sulphur as possible.

ATTENTION

Engine operation with leaded fuel

Damage to catalytic converter

- Do not attempt to run the vehicle on leaded fuel or fuel with metallic additives (e.g. manganese or iron).

92 RIDING

- Observe the maximum ethanol content of the fuel.

 Fuel additives clean the fuel injection system and the combustion zone. It is advisable to use fuel additives when the engine is operated with low-grade fuel or if the vehicle is to be out of use for a lengthy period of time. More information is available from your authorised BMW Motorrad retailer.

	Recommended fuel grade
	Super unleaded (max. 15% ethanol, E15)
	95 ROZ/RON 90 AKI
	Alternative fuel grade
	Regular, unleaded (max. 15% ethanol, E15)
	91 ROZ/RON 87 AKI

» Look for these symbols on the fuel filler cap and on the fuel pump:



Refuelling



WARNING

Fuel is highly flammable

Risk of fire and explosion

- Do not smoke. Never bring a naked flame near the fuel tank.



ATTENTION

Component damage

Component damage caused by overfilled fuel tank

- Overfilling the fuel tank will cause excess fuel to penetrate the carbon canister and cause component damage.
- Fill the fuel tank up to the lower edge of the filler neck only.



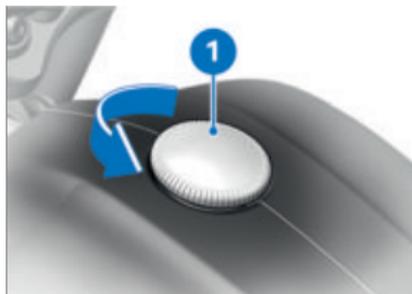
ATTENTION

Wetting of plastic surfaces by fuel

Damage to the surfaces (surfaces become unsightly or dull)

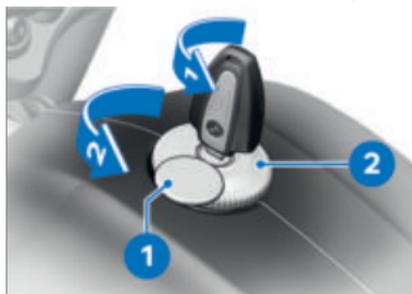
- Clean plastic surfaces immediately after contact with fuel.

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

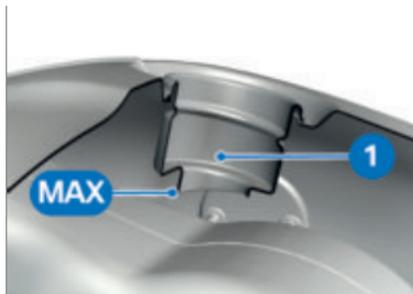


- Turn filler cap of fuel tank **1** counter-clockwise and remove.

–with lockable fuel filler cap^{OE}



- Swivel protective cap **1** aside.
- Use the ignition key to unlock filler cap of fuel tank **2** by turning it counter-clockwise.
- Turn filler cap of fuel tank **2** counter-clockwise and remove.◀



- Refuel with fuel of the grade stated; do not fill the tank past the bottom edge of filler neck **1**.

 When refuelling after running on reserve, make sure that you top up the tank to a level above reserve, so that the new level is detected and the fuel reserve indicator light is switched off.

 The "usable fuel capacity" specified in the technical data is the quantity that the fuel tank could hold if refilled after it had been run dry and the engine had cut out due to a lack of fuel.



Usable fuel capacity

approx. 16 l



Fuel reserve

approx. 4 l

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- Set the filler cap of the fuel tank in position and turn it clockwise to close.
- with lockable fuel filler cap^{OE}
- Use the ignition key to lock the filler cap of the fuel tank by turning it clockwise.
- Remove the ignition key and pivot the protective cap closed over the fuel tank lock.◁

SECURING MOTORCYCLE FOR TRANSPORTATION

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



ATTENTION

Vehicle topples to side when being lifted on to stand

Risk of damage to parts if vehicle topples

- Secure the vehicle to prevent it toppling, preferably with the assistance of a second person.
- Push the motorcycle onto the transportation flat and hold it in position: do not place it on the side stand.
- Have a helper hold the motorcycle to make sure that it cannot topple.



- and pass them down through the rear wheel swinging arm.
- Uniformly tighten all the straps.
 - » The vehicle's springs are compressed.



ATTENTION

Trapping of components

Component damage

- Do not trap components such as brake lines or cable legs.
- Run the strap over the steering head and tighten it down.



- Pass the straps on left and right through the rear wheel swinging arm first.
- Pass the straps on left and right up between rear-wheel cover and rear frame.
- Loop the straps on left and right round the rear frame

ENGINEERING DETAILS

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GENERAL NOTES

To find out more about engineering, go to:

bmw-motorrad.com/technik

GENERAL DRIVE FUNCTIONS

Gearshift speed control

When the clutch is disengaged and the throttle grip closed while the vehicle is on the move, engine speed does not immediately drop to idle speed. Gearshift speed control keeps engine speed above idle speed for several seconds, reducing the rpm difference between engine and transmission when the clutch re-engages. The tilting moment accompanying the gear shift is reduced and the shifting comfort experienced by the rider is increased.

Gearshift speed control is active in RAIN and ROLL riding modes.

Maximum rpm limitation at standstill

To prevent unwanted forward crawl away from a standstill, under the following conditions engine speed is limited to a maximum of 3600 rpm:

- Gear engaged.
- Clutch lever pulled.
- Vehicle speed < 3 km/h.

Speed increase when vehicle rolling forward in neutral

If the transmission is shifted into neutral when the vehicle is travelling at a speed in excess of 30 km/h, engine speed does not immediately drop to idle speed. Engine speed remains elevated above idle for a smoother rpm match when the transmission is shifted into first gear. This reduces the load on the rear-wheel drive when the gearshift takes place and increases the shifting comfort experienced by the rider.

ANTILOCK BRAKE SYSTEM (ABS)

Partially integral brakes

Your motorcycle is equipped with partially integral brakes. Both front and rear brakes are applied when you pull the handbrake lever. The foot-brake lever acts only on the rear brake.

While the brakes are slowing the motorcycle, the BMW Motorrad Integral ABS adapts braking-force distribution between front and

rear brakes to suit the load on the motorcycle.



ATTENTION

Attempted burn-out despite integral braking function

Damage to rear brake and clutch

- Do not attempt a burn-out unless the vehicle is at a complete standstill. A burn-out is not use of the vehicle as intended by the manufacturer and can, therefore, lead to fault memory entries.

How does ABS work?

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

If the rider increases the brake pressure to the extent that the brake 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?

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 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 it registers the actual circumstances, the system reacts instantly and adjusts braking force accordingly to achieve optimum braking.

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What feedback does the rider receive from the BMW Motorrad Integral ABS?

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

Rear wheel lift

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



WARNING

Rear wheel lift due to severe braking

Risk of falling

- When you brake sharply, bear in mind that ABS control cannot always be relied on to prevent the rear wheel from lifting clear of the ground.

What is the design baseline for BMW Motorrad 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.

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 lead to a fault message being issued:

- Heating up with the motorcycle on an auxiliary stand, in neutral 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.

How important is regular maintenance?



WARNING

Brake system not regularly serviced

Risk of accident

- In order to ensure that the BMW Motorrad ABS is always maintained in optimum condition, it is essential for you to comply strictly with the specified inspection intervals.

Safety reserves

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



WARNING

Braking when cornering

Risk of accident despite ABS

- Invariably, the rider bears responsibility for assessing road and traffic conditions and adopting his or her style of riding accordingly.
- Do not take risks that would negate the additional margin of safety offered by this system.

AUTOMATIC STABILITY CONTROL (ASC)

How does ASC work?

The BMW Motorrad ASC system compares the speed of rotation of the front wheel and the rear wheel. The differential is used to compute slip as a measure of the reserves of stability available at the rear wheel. If slip exceeds a certain limit, the engine management system intervenes and adapts engine torque accordingly.

Special situations

In accordance with the laws of physics, the ability to accelerate is restricted more and more as the angle of heel increases. Consequently, there can be a

perceptible lag in acceleration out of very tight bends.

The speeds of the front and rear wheels are compared as one means of detecting the rear wheel's incipient tendency to spin or slip sideways. If the system registers implausible values for a lengthy period the ASC function is deactivated for safety reasons and an ASC fault message is issued. Self-diagnosis has to complete before fault messages can be issued. The BMW Motorrad ASC can switch off automatically under the exceptional riding conditions outlined below.

Exceptional riding conditions:

- Riding for a lengthy period with the front wheel lifted off the ground (wheelie) with ASC deactivated
- Rear wheel rotating with the vehicle held stationary by application of the front brake (burn-out)
- Warming up with the motorcycle on an auxiliary stand, in neutral or with a gear engaged

Accelerating the motorcycle to a speed in excess of 5 km/h after switching the ignition off and then on again reactivates the ASC.

If the front wheel lifts clear of the ground under severe acceleration, the ASC reduces engine torque until the front wheel regains contact with the ground.

Under these circumstances, BMW Motorrad recommends rolling the throttle slightly closed so as to restore stability with the least possible delay.

Slippery surface

On very loose surfaces (for example sand or snow), the ASC's attempts to control propulsive power might reduce drive to the extent that the rear wheel no longer turns.

Under these circumstances, BMW Motorrad recommends temporarily switching off ASC. Bear in mind that the rear wheel will spin on the loose surface and close the throttle in good time before you reach a firm surface.

Then reactivate ASC.

RIDING MODE

Selection

To adjust the motorcycle to the road condition and the desired driving experience, the following riding modes can be selected:

- RAIN
- ROLL
- ROCK

There are matched settings for the ASC, dynamic engine brake control and engine characteristic for each riding mode. In the ROCK riding mode, the engine has a very spirited idle that makes a clear statement about the potency of the opposed-twin engine even when the vehicle is just ticking over at a standstill. The direct throttle response ensures unfiltered power output and renders the engine's dynamism impressively perceptible.

Throttle response

- In RAIN riding mode: Gentle throttle response.
- In ROLL riding mode: Optimum throttle response.
- In ROCK riding mode: Direct throttle response.

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Automatic Stability Control (ASC)

- In the RAIN riding mode: maximum stability on wet roads. There may be reduced acceleration on dry roads.
- In the ROLL riding mode: high performance on dry roads. In the event of poor road conditions, optimum stability cannot be guaranteed.
- In ROCK riding mode: Maximum performance. On a poor road surface or with unsuitable tyres, stability might be impaired.

Mode changes

The riding mode can be selected while the vehicle is stationary with the ignition on. Under the following precondition, it is also possible to change modes while riding:

- No drive torque on the rear wheel.
- No brake pressure in the brake system.

The following steps must be taken to change the riding mode:

- Close the throttle twistgrip.
- Release the brake levers.
- Deactivate the cruise control.

The desired riding mode is initially preselected. The mode change does not take place until the systems in question are all in the appropriate state. The selection menu does not disappear from the display until the mode change has taken place.

DYNAMIC ENGINE BRAKE CONTROL

How does dynamic engine brake control work?

The purpose of dynamic engine brake control is to prevent the unstable riding states that can be produced by excessive engine braking moment acting on the rear wheel. Depending on the road condition and riding dynamic, excessive braking torque can produce a sharp rise in rear-wheel slip and impair directional stability. Dynamic engine brake control limits this slip at the rear wheel to a safe, mode-dependent regulated slip.

Causes for excessive slip at the rear wheel:

- Riding with engine overrun on a surface with a low coefficient of friction (e.g. wet leaves).

- Rear-wheel hop when rider downshifts.
- Sharp braking during sporty riding.

In the same way as BMW Motorrad ASC, dynamic engine brake control compares the wheel circumferential velocities of the front and rear wheels. Dynamic engine brake control uses this differential to compute slip as a measure of the reserve of stability available at the rear wheel.

If slip overshoots the applicable limit, the throttle valves are opened very slightly to increase engine torque. Slip is reduced and the vehicle is stabilised.

Effect of dynamic engine brake control

- In the RAIN and ROLL riding modes: Maximum stability
- In the ROCK riding mode: Compared with the RAIN and ROLL riding modes, reduced intervention

DYNAMIC BRAKE CONTROL

Dynamic Brake Control function

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

Detection of emergency braking

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

Behaviour in emergency braking

- If emergency braking occurs at a speed in excess of 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 emergency braking, Dynamic Brake Control ensures the desired braking effect by ignoring actuation of the throttle grip. The

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effectiveness of emergency braking is ensured.

- If the throttle is closed (throttle grip position < 5 %) while Dynamic Brake Control is in action, the engine torque requested by the ABS brake system is restored.
- If emergency braking ceases and the rider still has not changed the position of the throttle grip, Dynamic Brake Control steadily ramps engine torque back to the rider's requested level.

HILL START CONTROL

-with Hill Start Control^{OE}

Hill Start Control function

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

Behaviour when the motorcycle rolls or slips

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

Brake release when engine is stopped or after time-out

Hill Start Control is deactivated if the rider stops the engine by hitting the emergency-off switch (kill switch) or when the side stand is extended, or after time-out (10 minutes).

In addition to the indicator and warning lights, the rider should be made aware that Hill Start Control has been deactivated by the following behaviour:

Brake warning jolt

- The brake is released briefly and reactivated immediately.
- This creates a jolt which the rider feels.
- The 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.

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

- Bank angle is more than 7°.
- Speed is higher than 10 km/h.
- The low-beam headlight is switched on.

ADAPTIVE HEADLIGHT

–with adaptive head light^{OE}

Function

In addition to the bulbs for low beam, high beam and daytime riding light, or side light, the headlight has two separate LED elements complete with their own reflectors. The LED elements are activated as a function of bank angle in addition to the low-beam headlight, enabling the headlight to illuminate the inside of the bend as the motorcycle banks for cornering. The adaptive cornering headlight is optimised for bank angles up to 25°.

The adaptive cornering headlight is activated under the following conditions:

MAINTENANCE

08

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110 MAINTENANCE

GENERAL NOTES

The Maintenance chapter describes straightforward procedures for checking and replacing certain wear parts.

Special tightening torques are listed as applicable. The tightening torques for the threaded fasteners on your vehicle are listed in the section entitled "Technical data".

Microencapsulated screws

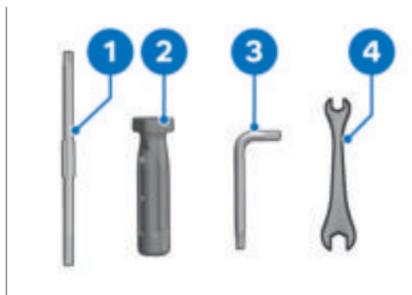
The microencapsulation is a chemical thread-locker. An adhesive compound creates a secure connection between bolt and nut or between screw and component. Consequently, microencapsulated screws are for once-only use and are not intended for re-installation after being slackened.

After removal of the screw, clean the internal thread to remove all traces of thread-locking compound. Always use new microencapsulated screws when re-assembling. Consequently, prior to disassembly make sure that you have suitable tools for cleaning the threads and a new replacement for each screw to be removed. If the job is not done correctly there is no guaran-

tee that the screw will remain secure, which means that you would be putting yourself at risk!

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

TOOLKIT



- 1** Reversible screwdriver blade
Slotted bit and Torx T25
–Replace the fuses
(➡ 139).
- 2** Screwdriver handle
–Top up the engine oil
(➡ 114).
–Use with screwdriver insert
- 3** Torx wrench, T30
–Top up the engine oil
(➡ 114).

- 3 -Remove the rider's seat (▮▮▮ 68).
- 4 Open-ended spanner
Width across flats 10/
13 mm
-Adjust the spring
preload for rear wheel
(▮▮▮ 75).
-Adjust the mirror arm
(▮▮▮ 72).

SIDE PANEL

Removing side trim panel

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

 The procedure described here for the right side panel applies by analogy to the left side as well.



- Disengage side trim panel 2 from retaining pins 1.

Installing side trim panel

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

 The procedure described here for the right side panel applies by analogy to the left side as well.

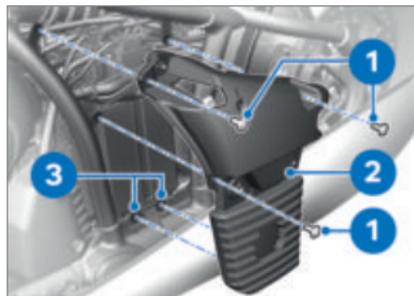


- Snap side trim panel 2 into retaining pins 1.

FAIRING BRACKET

Removing left fairing bracket

- Remove the side trim panel (▮▮▮ 111).

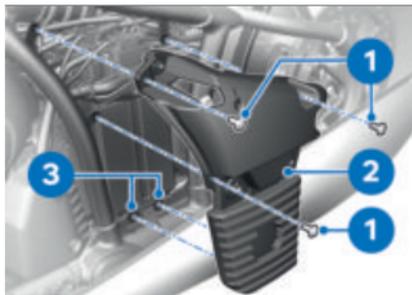


- Remove screws 1 from left fairing carrier 2.

112 MAINTENANCE

- Disengage left fairing carrier **2** from grommets **3** and remove.

Installing left fairing bracket



- Engage left fairing carrier **2** in grommets **3**.
- Install screws **1** in left fairing carrier **2**.

 Carrier for side cover to frame

M5 x 14

Thread-locking compound:
micro-encapsulated

5 Nm

- Install the side trim panel (→ 111).

Removing right fairing bracket

- Remove the side trim panel (→ 111).



- Remove screws **3** from right fairing carrier **2**.
- Disengage right fairing carrier **2** from grommet **1** and remove.

Installing right fairing bracket



- Engage right fairing carrier **2** in grommet **1**.
- Install screws **3** in right fairing carrier **2**.

 Carrier for side cover to frame

M5 x 14

Thread-locking compound:
micro-encapsulated

5 Nm

- Install the side trim panel (▶▶▶ 111).

FRONT-WHEEL STAND

Installing front-wheel stand



ATTENTION

Use of the front wheel stand without accompanying use of auxiliary stand

Risk of damage to parts if vehicle topples

- Place the motorcycle on an auxiliary stand before lifting the front wheel with the front-wheel stand.
- Make sure the motorcycle is standing firmly.
- Place the motorcycle on an auxiliary stand.
- Install the rear-wheel stand (▶▶▶ 113).
- See the instructions issued with the front-wheel stand for the details of the correct procedure for installation.
- Your authorised BMW Motorrad retailer will be happy to assist you in selecting a suitable assembly stand.

REAR-WHEEL STAND

Installing rear-wheel stand

- The description of how to fit the rear-wheel stand correctly will be found in the instructions for the stand.
- Your authorised BMW Motorrad retailer will be happy to assist you in selecting a suitable assembly stand.

ENGINE OIL

Checking engine oil level



ATTENTION

Misinterpretation of oil level reading, because oil level is temperature-dependent (the higher the temperature, the higher the oil level)

Engine damage

- Check the oil level only after a lengthy ride or when the engine is at operating temperature.
- Switch off the engine when it is at operating temperature.
- Make sure the ground is level and firm and hold the motorcycle upright.
- Wait five minutes for the oil to drain into the oil pan.

114 MAINTENANCE



ATTENTION

Vehicle toppling sideways

Risk of damage to parts if vehicle topples

- Secure the vehicle, preferably with the assistance of a second person, so that it cannot topple sideways.
- Check the oil level in the display **1**.



Engine oil, specified level

between **MIN** and **MAX** mark

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

- Top up the engine oil (►► 114).

If the oil level is above the **MAX** mark:

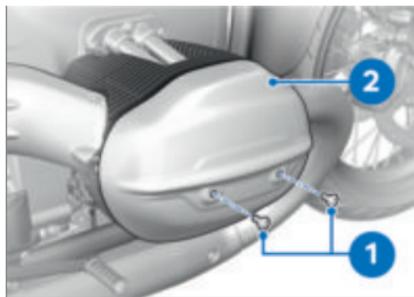
- Have the oil level corrected by a specialist workshop, preferably an authorised BMW Motorrad retailer.



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

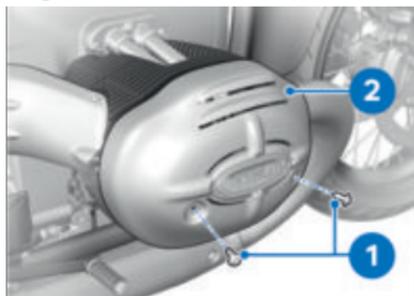
Topping up engine oil

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

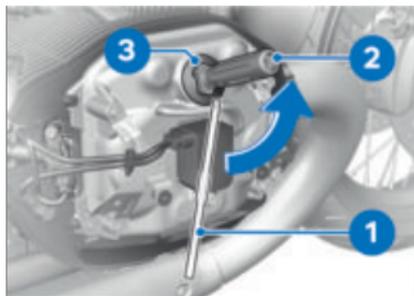


- Remove screws **1** with the tool from the on-board toolkit and remove cover **2**.

–with Option 719 design package Aero^{OE}



- Remove screws **1** with the tool from the on-board toolkit and remove cover **2**. ◀



- Wipe the area around the oil filler opening clean.
- Insert cross-head end of reversible screwdriver insert **1** into screwdriver handle **2** (on-board toolkit).
- Engage the tool in cap **3** and turn the cap counter-clockwise.
- Remove cap **3** of the oil filler opening.



ATTENTION

Use of insufficient engine oil or too much engine oil

Engine damage

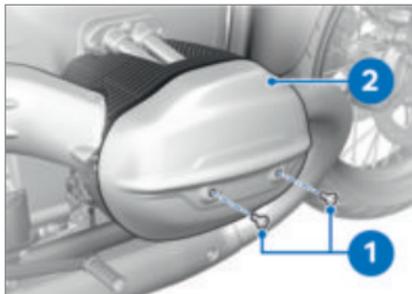
- Always make sure that the oil level is correct.
- Slowly and gradually top up the engine oil to the specified level.



Engine oil, quantity for topping up

max 0.5 l (Difference between **MIN** and **MAX**)

- Check the engine oil level (→ 113).
- Install cap **3**.



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



Cylinder head cover to cylinder head

M6

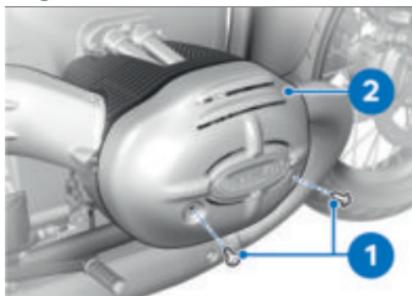
Joining compound: Oil rubber grommet

116 MAINTENANCE

 Cylinder head cover to cylinder head

10 Nm

–with Option 719 design package Aero^{OE}



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

 Cylinder head cover to cylinder head

M6

Joining compound: Oil rubber grommet

10 Nm◁

BRAKE SYSTEM

Checking operation of the brakes

- Pull the handbrake lever.
 - » There is a clearly perceptible pressure point.
- Press the footbrake lever.
 - » There is a clearly perceptible pressure point.

If pressure points are not clearly perceptible:

ATTENTION

Work on brake system not in compliance with correct procedure

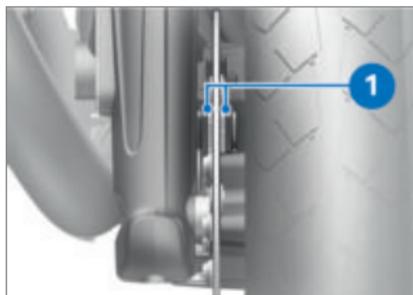
Risk to operational reliability of the brake system

- Have all work on the brake system undertaken by trained and qualified specialists.

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

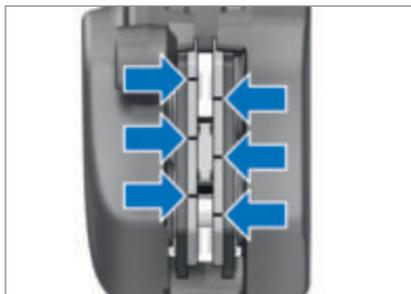
Checking brake pad thickness, front brakes

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



- Visually inspect the left and right brake pads to ascertain their thickness. Viewing direction: Between wheel

and front suspension toward brake pads **1**.



 Brake-pad wear limit, front

min 1 mm (Friction pad only, without backing plate. The wear indicators (grooves) must be clearly visible.)

If the wear indicating marks are no longer visible:

WARNING

Brake-pad thickness less than permissible minimum

Diminished braking effect, damage to the brakes

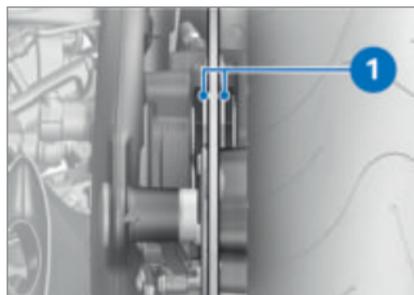
- In order to ensure the dependability of the brake system, do not permit the brake pads to wear past the minimum permissible thickness.

- Have the brake pads replaced by a specialist workshop,

preferably an authorised BMW Motorrad retailer.

Checking brake pad thickness, rear brakes

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



- Visually inspect the brake pads to ascertain their thickness. Viewing direction: between rear wheel and rear suspension toward brake pads **1**.

118 MAINTENANCE



Brake-pad wear limit,
rear

min 1 mm (Friction pad only, without backing plate. The wear indicators (grooves) must be clearly visible.)

If the wear indicating marks are no longer visible:



WARNING

Brake-pad thickness less than permissible minimum

Diminished braking effect, damage to the brakes

- In order to ensure the dependability of the brake system, do not permit the brake pads to wear past the minimum permissible thickness.
- Have the brake pads replaced by a specialist workshop, preferably an authorised BMW Motorrad retailer.

Checking brake-fluid level, front brakes



WARNING

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

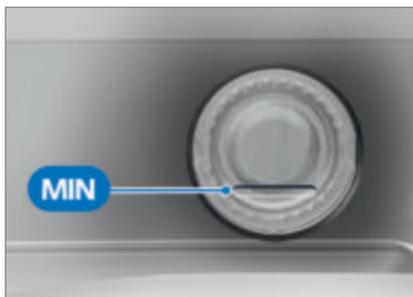
Considerably reduced braking power due to presence of air, contaminants or water in the brake system

- 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 hold the motorcycle upright.



- Turn the handlebars to a position in which the brake fluid reservoir is horizontal.
- Check the brake fluid level in sight glass **1**.

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



Brake fluid level, front

Brake fluid, DOT4

The brake fluid level may not drop below the **MIN** mark. (Brake-fluid reservoir horizontal.)

If the brake fluid level drops below the permitted level:

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

Checking brake-fluid level, rear brakes

WARNING

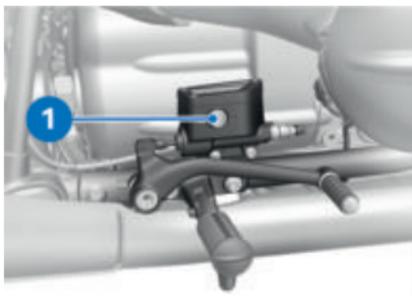
Not enough brake fluid in brake fluid reservoir, or contaminants in brake fluid

Considerably reduced braking power due to presence of air, contaminants or water in the brake system

- Cease operation of the vehicle immediately and do not ride it until the fault has been rectified.
- Check the brake-fluid levels at regular intervals.
- Always make sure that the lid of the brake fluid reservoir and the area around the lid are cleaned before opening.
- Make sure that only fresh brake fluid from a sealed container is used.

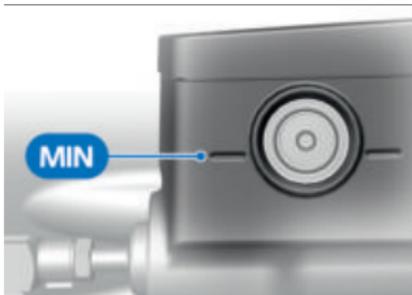
- Make sure the ground is level and firm and hold the motorcycle upright.

120 MAINTENANCE



- Check the brake fluid level in brake fluid reservoir **1**.

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



Brake fluid level, rear

Brake fluid, DOT4

The brake fluid level may not drop below the **MIN** mark. (Brake-fluid reservoir horizontal)

If the brake fluid level drops below the permitted level:

- Have the fault rectified as quickly as possible by a specialist workshop, preferably an

authorised BMW Motorrad retailer.

CLUTCH

Checking operation of the clutch

- Pull the clutch lever.
 - » There is a clearly perceptible pressure point.

If the pressure point is not clearly perceptible:

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

TYRES

Check the tyre pressures



WARNING

Incorrect tyre pressure

Impaired handling characteristics of the motorcycle, shorter useful tyre life

- Always check that the tyre pressures are correct.



WARNING

Tendency of valve inserts to open by themselves at high riding speeds

Sudden loss of tyre pressure

- Install valve caps fitted with rubber sealing rings and tighten firmly.

- Make sure the ground is level and firm and place the motorcycle on its stand.
- Check tyre pressures against the data below.

 Tyre pressure, front
2.5 bar (Tyre cold)
 Tyre pressure, rear
2.9 bar (One-up, tyre cold)
2.9 bar (Two-up mode with loading, with a cold tyre)

If tyre pressure is too low:

- Correct tyre pressure.

Check the tyre tread depth



WARNING

Riding with badly worn tyres

Risk of accident due to impaired handling

- If applicable, have the tyres changed in good time before they wear to the minimum tread depth permitted by law.

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

- Measure the tyre tread depth in the main tread grooves with wear marks.



Wear indicators are built into the main profile grooves on each tyre. The tyre is worn out when the tyre tread has worn down to the level of the marks. The locations of the marks are indicated on the edge of the tyre, e.g. by the letters TI, TWI or by an arrow. If the tyre tread is worn to minimum:

- Replace tyre or tyres, as applicable.

WHEEL RIMS

Check the rims

- Make sure the ground is level and firm and place the motorcycle on its stand.
- Visually inspect the rims for defects.
- Have damaged rims checked and, if necessary, replaced by a specialist workshop, preferably an authorised BMW Motorrad retailer.

Checking spokes

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

122 MAINTENANCE

- Draw the handle of a screwdriver or a similar instrument across the spokes and listen to the sequence of sounds made by the individual spokes.

If there is a variation in the sequence of sounds:

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

WHEELS

Effect of wheel size on chassis and suspension control systems

Wheel size is very important as a parameter for the running-gear control systems such as ABS, for example. In particular, the diameter and the width of a vehicle's wheels are programmed into the control unit and are fundamental to all calculations. Any change in these influencing variables, caused for example by a switch to wheels other than those installed ex-works, can have serious effects on the performance of the control systems.

The sensor rings are essential for correct road-speed calculation, and they too must match the motorcycle's control sys-

tems and consequently cannot be changed.

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

Removing front wheel

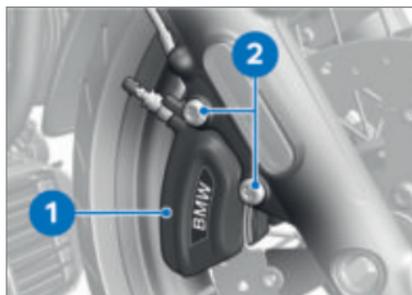
- Place the motorcycle on an auxiliary stand.
- Install the rear-wheel stand (▣▣▣► 113).



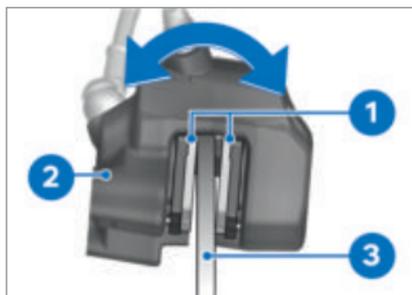
- Slacken clamping screws **1** on left and right.
- Raise front of motorcycle until the front wheel can turn freely.
- Install the front-wheel stand (▣▣▣► 113).



- Remove cable tie **2**.
- Remove screws **3**.
- Loosen left brake caliper **1**.



- Remove screws **2**.
- Loosen right brake caliper **1**.



- Force brake pads **1** slightly apart by rocking brake caliper **2** back and forth against brake disc **3**.

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.

ATTENTION

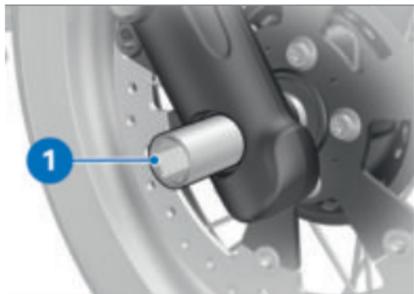
Use of hard or sharp-edged objects in proximity to component

- Component damage
- Take care not to scratch components; cover or mask as necessary.
 - Mask off the parts of the wheel rim that could be scratched in the process of removing the brake calipers.
 - Carefully pull the brake calipers back and out until clear of the brake discs.

124 MAINTENANCE



- Slacken screw **1**, but **do not remove it**.
- Press quick-release axle with screw **1** slightly toward the inside, so as to be better able to grip it on the right-hand side.
- Remove screw **1**.



- Withdraw quick-release axle **1**, support the front wheel when doing this.



ATTENTION

Removal of front wheel not in compliance with correct procedure

Damage to wheel speed sensor

- Note the wheel-speed sensor when rolling out the front wheel.

- Set down front wheel and roll forwards out of the front suspension.



- Remove spacer bushing **1** from the wheel hub.

Installing front wheel

WARNING

Use of a non-standard wheel
Malfunctions in control attempts made by the ABS and ASC

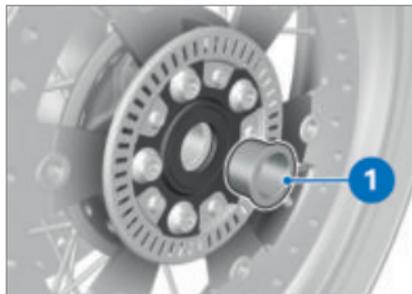
- See the information on the effect of wheel size on the ABS and ASC systems at the start of this chapter.

ATTENTION

Tightening threaded fasteners to incorrect tightening torque

Damage, or threaded fasteners work loose

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



- Lubricate the friction face of spacer bushing **1**.



Lubricant

Optimoly TA

- Insert spacer bushing **1**, turned with the collar facing out, 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.

ATTENTION

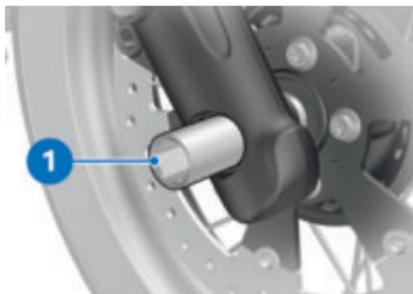
Installation of front wheel not in compliance with correct procedure

Damage to wheel speed sensor

- Note the wheel-speed sensor when rolling in the front wheel.

- Roll the front wheel into position between the forks of the front suspension.

126 MAINTENANCE



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



Lubricant

Optimoly TA



WARNING

Improper installation of the quick-release axle

Loosening of the front wheel

- After securing the brake calipers and relieving the front forks, tighten the quick-release axle and the axle clamping to the specified tightening torque.
- Lift the front wheel and insert quick-release axle **4**.
- Remove front-wheel stand and firmly compress front forks several times. Do not operate the handbrake lever in this process.
- Install the front-wheel stand (▶▶ 113).



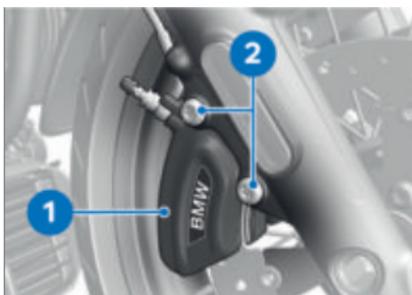
- Install screw **1**. In this process, counter-hold the quick-release axle on the right side.



Bolt on quick-release axle

M20 x 1,5 - 8.8

50 Nm



- Hold right brake caliper **1** in position and install screws **2**.



Brake caliper to telescopic fork

M10 x 40 - 10.9

56 Nm



- Hold left brake caliper **1** in position and install screws **3**.



Brake calliper to telescopic fork

M10 x 40 - 10.9

56 Nm

- Secure cable ties **2**.



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.
- Remove the adhesive tape from the wheel rim.
- Remove the front-wheel stand.



- Tighten clamping screws **1** on the left and right to the specified torque.



Clamping screws in axle holder

Tightening sequence: Tighten screws six times in alternate sequence

M8 x 35 - 8.8

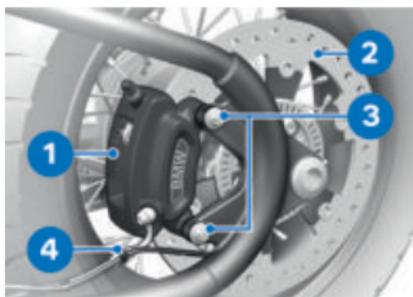
19 Nm

- Extend the side stand.
- Remove the rear-wheel stand.
- Place the motorcycle on its side stand.

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Removing rear wheel

- Lift the motorcycle, preferably with a rear-wheel stand.
- Engage first gear.
- Install the rear-wheel stand (▮▮▮ 113).
- Remove the silencer (▮▮▮ 131).
- Remove the license plate.



- Remove cable tie **4**
- Remove screws **3**.



ATTENTION

Operation of the front brake or rear brake with brake calipers and brake pads removed (the front brake also operates the rear brake (Integral brakes))

Brake pistons pushed out

- Do not operate the brakes while a brake caliper has been removed.
- Install brake caliper with brake pads or insert the piston resetting device.

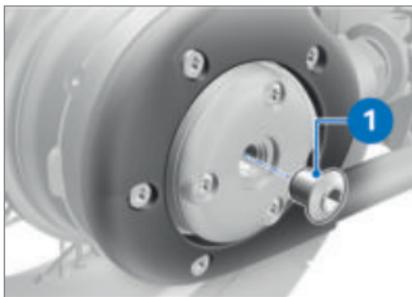


ATTENTION

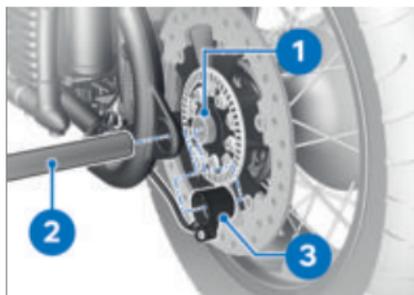
Use of hard or sharp-edged objects in proximity to component

Component damage

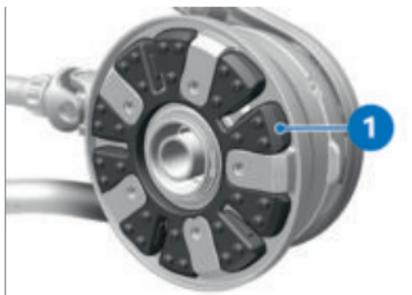
- Take care not to scratch components; cover or mask as necessary.
- Mask off the parts of the wheel rim that could be scratched in the process of removing the brake calipers.
- Disengage brake caliper **1** from brake disc **2** and lay it aside.



- Remove screw **1**.

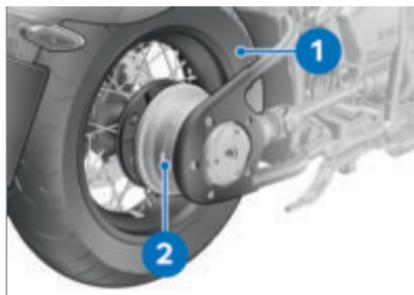


- Remove quick-release axle **2**, allow sensor holder **3** to dangle from the cable.
- Remove bush **1**.



- Check judder-damper rubber element **1**; replace if necessary.

Installing rear wheel



- Position a wooden block or similar underneath rear wheel **1** to take its weight.
- Separate rear wheel **1** from rear-wheel drive **2** and remove.

WARNING

Use of a non-standard wheel
Malfunctions in control attempts made by the ABS and ASC

- See the information on the effect of wheel size on the ABS and ASC systems at the start of this chapter.

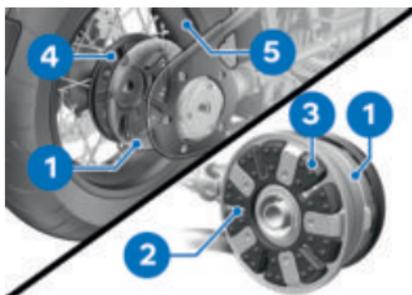
130 MAINTENANCE

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.

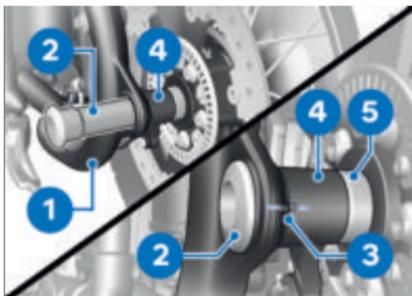


- Thinly lubricate judder-damper rubber element **3**.

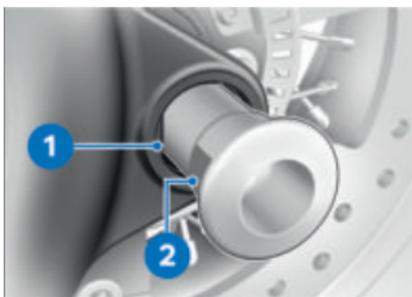
 Installation tool

Silicone spray

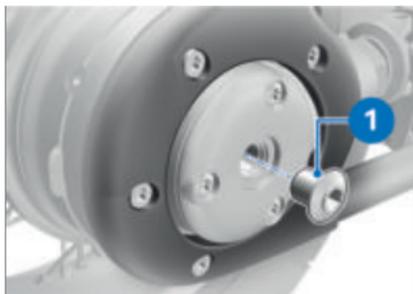
- Hold rear wheel **5** in position and support it appropriately.
- Engage rear wheel **5** in rear-wheel drive **1**.
- » Cast ribs **4** engage the recesses in judder-damper rubber element **2**.



- Install bush **5**.
- Hold sensor holder **4** and quick-release axle **2** in position.
- Bring marks **3** on sensor holder **4** and rear wheel swinging arm **1** into alignment.
- Insert quick-release axle **2**.



- Align flat on quick-release axle **2** with flat on rear frame **1**.
- » Quick-release axle can be inserted all the way.



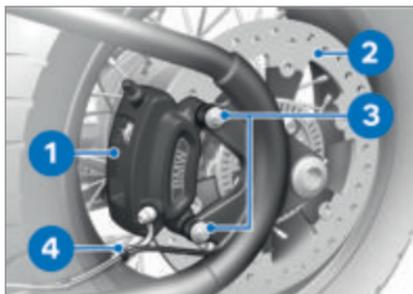
- Install screw **1**.



Bolt to rear wheel quick-release axle

M20 x 1,5 - 8.8

100 Nm



- Hold brake caliper **1** in position on brake disc **2**.
- Install screws **3**.



Rear brake caliper on rear wheel swinging arm

M10 x 40 - 10.9

56 Nm

- Secure cable tie **4**.
- 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.
- Install the license plate.
- Install the silencer (▣► 132).
- Remove the rear-wheel stand.

SILENCER

Removing silencer



CAUTION

Hot exhaust system

Risk of burn injury

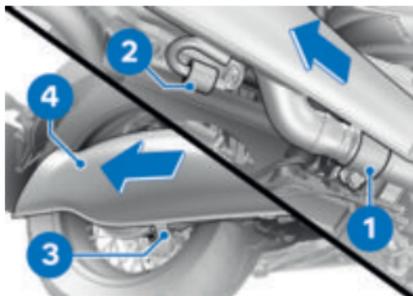
- Do not touch a hot exhaust system.



The procedure described here for the right silencer applies by analogy to the left silencer as well.

- Allow the silencer to cool.
- Lift the motorcycle, preferably with a rear-wheel stand.
- Install the rear-wheel stand (▣► 113).

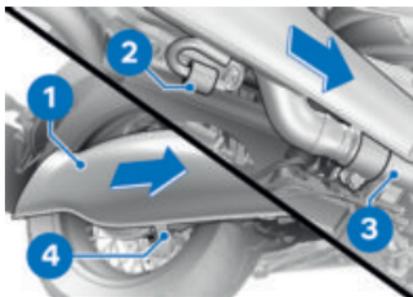
132 MAINTENANCE



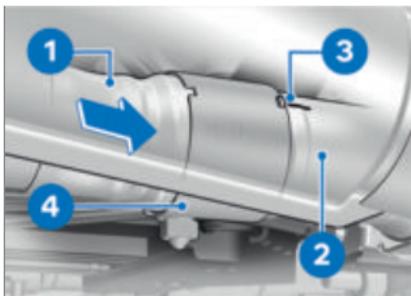
- Slacken clamp **1**.
- Ease silencer **4** out of holders **2** and **3** and remove.

Installing silencer

 The procedure described here for the right silencer applies by analogy to the left silencer as well.



- Position silencer **1** at brackets **2** and **4**.
- Push silencer **1** on to exhaust manifold **3**.



- Align the clamp with recess **4** on the retaining lug and mark **3**.
- » Retaining lug engages recess in the clamp.
- Tighten clamp **4**.

 Clamp to silencer and exhaust manifold

24 Nm

LIGHTING

Replacing LED light sources

 **WARNING**

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

Safety risk

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

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

JUMP-STARTING

CAUTION

Touching live parts of the ignition system when the engine is running

Electric shock

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

ATTENTION

Excessive current flowing when the motorcycle is jump-started

Wiring smoulders/ignites or damage to the on-board electronics

- If the motorcycle has to be jump-started connect the leads to the battery terminals; never attempt to jump-start the engine by connecting leads to the on-board socket.

ATTENTION

Contact between crocodile clips of jump leads and vehicle

Risk of short-circuit

- Use jump leads fitted with fully insulated crocodile clips at both ends.

ATTENTION

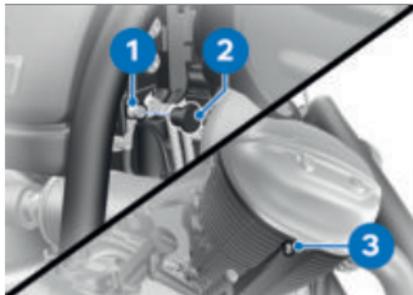
Jump-starting with a voltage greater than 12 V

Damage to the on-board electronics

- Make sure that the battery of the donor vehicle has a voltage rating of 12 V.

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- When jump-starting the engine, do not disconnect the battery from the on-board electrical system.
- Make sure the ground is level and firm and place the motorcycle on its stand.



- Remove protective cap **2**.
- Begin by connecting one end of the red jump lead to remote positive terminal **1** and the other end to the positive terminal of the donor battery.
- Connect one end of the black jump lead to vehicle's remote ground terminal **3** and the other end to the negative terminal of the donor battery.
- Run the engine of the donor vehicle during jump-starting.
- Start the engine of the vehicle with the discharged battery in the usual way; if the engine does not start, wait a few minutes before repeating the attempt in order to

protect the starter motor and the donor battery.

 Do not use proprietary start-assist sprays or other products to start the engine.

- Allow both engines to run for a few minutes before disconnecting the jump leads.
- Disconnect the jump lead from remote ground terminal **3** first, then disconnect the second jump lead from remote positive terminal **1**.
- Install protective cap **2**.

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.
- Follow the loading instructions on the following pages.
- Do not turn the battery upside down.

**ATTENTION****On-board electronics (e.g. clock) draining connected battery**

Battery is deep-discharged; this voids the guarantee

- Connect a float charger to the battery if the motorcycle is to remain out of use for more than four weeks.



BMW Motorrad has developed a float charger specially designed for compatibility with the electronics of your motorcycle. Using this charger, you can keep the battery charged during long periods of disuse, without having to disconnect the battery from the motorcycle's on-board systems. You can obtain additional information from your authorised BMW Motorrad dealer.

Recharging connected battery**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.

- Disconnect devices plugged into the socket.
- Comply with the operating instructions of the charger.
- Charge the battery connected to the vehicle's on-board electrical system via the socket.



The motorcycle's on-board electronics know when the battery is fully charged. The on-board socket is switched off when this happens.



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.

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

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.
- Charge the disconnected battery directly at the terminals.

Recharging disconnected battery

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

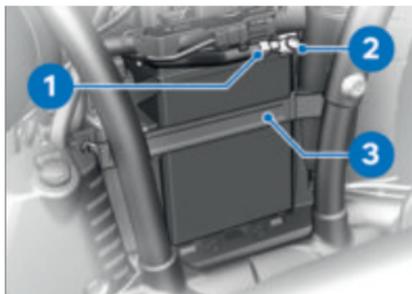


The battery has to be recharged at regular intervals in the course of a lengthy period of disuse. See the instructions for caring for your battery. Always fully recharge the battery before restoring it to use.

Removing battery

—with anti-theft alarm (DWA)^{OE}

- If applicable, switch off the anti-theft alarm.◁
- Switch off the ignition (▣▣▣ 42).
- Remove the left fairing bracket (▣▣▣ 111).

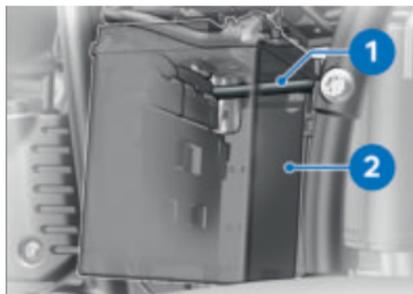
**ATTENTION**

Battery not disconnected in accordance with correct procedure

Risk of short-circuit

- Always proceed in compliance with the specified disconnection sequence.

- Remove negative battery cable **1** with screw **2**.
- Remove retaining strap **3**.

**ATTENTION**

Battery comes into contact with the silencer during removal/installation

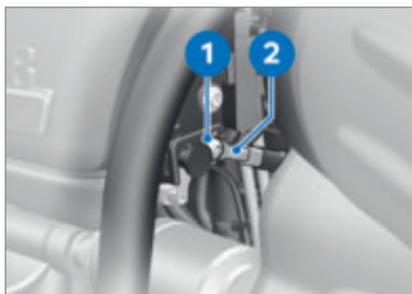
Component damage

- Use a piece of cardboard, for example, to protect the silencer against scratches.

- Remove battery **2** completely, noting adapter cable for remote positive terminal **1**.

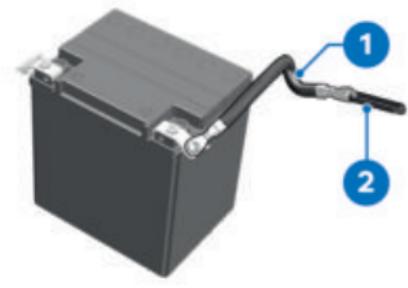
Installing battery

If the vehicle has been disconnected from the battery for a significant time, the current date will have to be entered in the instrument cluster to guarantee correct operation of the service display.



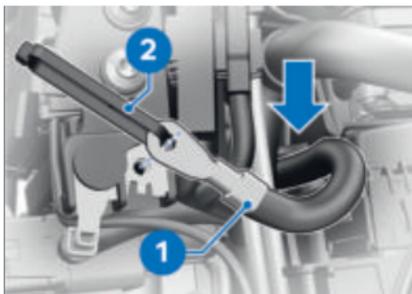
- On the right side of the vehicle, remove adapter cable for remote positive terminal **2** with screw **1**.

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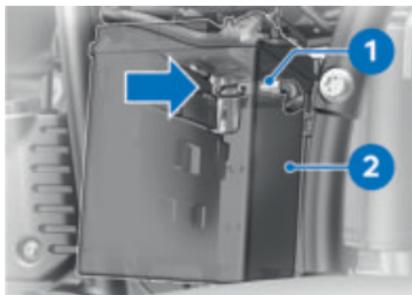


- To facilitate installation, secure cable tie **2** to adapter cable for remote positive terminal **1**.

- Route adapter cable for remote positive terminal **1** as close as possible to the opening (**arrow**).



- On the right side of the vehicle, grip adapter cable for remote positive terminal **1** at the opening (**arrow**) by the cable tie and work it into position.
- Remove cable tie **2**.



ATTENTION

Battery comes into contact with the silencer during removal/installation

Component damage

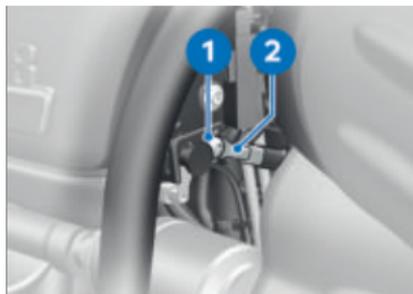
- Use a piece of cardboard, for example, to protect the silencer against scratches.
- Slide battery **2** into position, adapter cable for remote positive terminal **1** first.



- Push the battery all the way in, noting the routing of adapter cable for remote positive terminal **1**.
- Adapter cable for remote positive terminal **1** must be seated in recess **2** between

the battery and the battery holder.

- Do not trap adapter cable for remote positive terminal **1** between the battery and the battery holder.

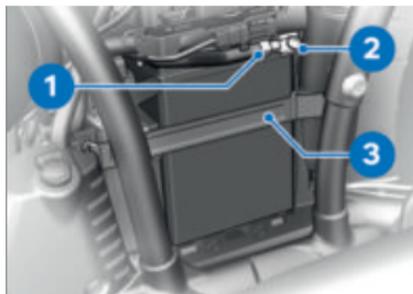


ATTENTION

Battery not connected in accordance with correct procedure

Risk of short-circuit

- Always proceed in compliance with specified installation sequence.
- Install adapter cable for remote positive terminal **2** with screw **1**.



- Install negative battery cable **1** with screw **2**.
- Install retaining strap **3**.
- Install the left fairing bracket (▮▮▮ 112).

- with anti-theft alarm (DWA)^{OE}

- If applicable, switch on the anti-theft alarm.
- Set the clock (▮▮▮ 53).
- Set the date (▮▮▮ 54).◁

FUSES

Replacing fuses



ATTENTION

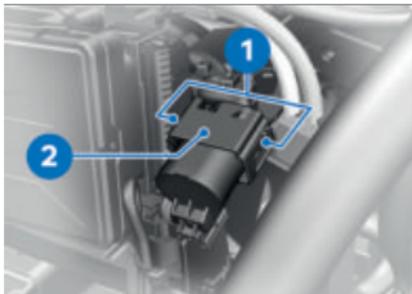
Jumpering of blown fuses

Risk of short-circuit and fire

- Never attempt to jumper a blown fuse.
- Always replace a defective fuse with a new fuse of the same amperage.
- Switch off the ignition (▮▮▮ 42).

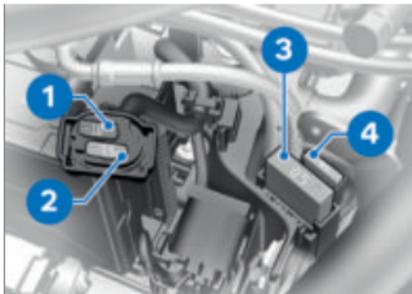
140 MAINTENANCE

- Make sure the ground is level and firm and place the motorcycle on its stand.
- Remove the right fairing bracket (►► 112).



- Press locks **1** on both sides.
 - Remove fuse box **2**.
-  If fuse defects recur frequently have the electric circuits checked by a specialist workshop, preferably an authorised BMW Motorrad dealer.
- Consult the fuse assignment diagram below and replace the defective fuse.
- » Fuse assignment (►► 140)
- Insert fuse box **2**. Make sure that locks **1** engage on both sides.
 - Install the right fairing bracket (►► 112).

Fuse assignment



Fuse 1

10 A (Anti-theft alarm system, instrument cluster, OBD connector, isolating relay, ignition switch)



Fuse 2

7.5 A (Sensor box, round instrument, left multifunction switch)



Main fuse

50 A (Main fuse)



Fuse 4

15 A (Fuse carrier, OA connector)

DIAGNOSTIC CONNECTOR

Disengaging diagnostic socket



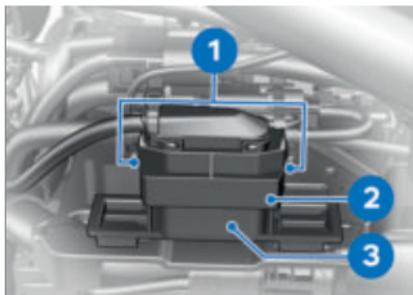
CAUTION

Incorrect disconnection of the diagnostic socket for on-board diagnosis

Malfunctions of the vehicle

- Do not disconnect the diagnostic socket or allow it to be disconnected except in the course of a BMW Motorrad service by a specialist workshop or by other authorised persons.
- Have the work carried out by appropriately trained personnel.
- Comply with the stipulations of the vehicle manufacturer.

- Remove the left fairing bracket (▮▮▮ 111).

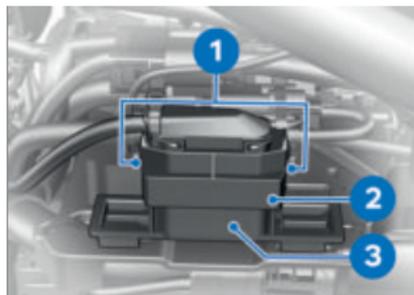


- Press locks **1**.

- Disengage diagnostic socket **2** from holder **3**.
 - » The interface to the diagnosis and information system can be connected to the diagnostic connector **2**.

Securing diagnostic socket

- Disconnect the interface for the diagnosis and information system.



- Insert diagnostic socket **2** into holder **3**.
 - » The locks **1** engage.
- Install the left fairing bracket (▮▮▮ 112).

ACCESSORIES

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GENERAL NOTES



CAUTION

Use of other-make products

Safety risk

- BMW Motorrad cannot examine or test each product of outside origin to ensure that it can be used on or in connection with BMW vehicles without constituting a safety hazard. Country-specific official authorisation does not suffice as assurance. Tests conducted by these instances cannot make provision for all operating conditions experienced by BMW vehicles and, consequently, they are not sufficient in some circumstances.
- Use only parts and accessories approved by BMW for your vehicle.

BMW has conducted extensive testing of the parts and accessory products to establish that they are safe, functional and suitable. Consequently, BMW accepts responsibility for the products. BMW accepts no liability whatsoever for parts and accessories that it has not approved.

All modifications must be in compliance with legal requirements. Make sure that the vehicle does not infringe the national road-vehicle construction and use regulations applicable in your country. Your authorised BMW Motorrad retailer can offer expert advice on the choice of genuine BMW parts, accessories and other products. To find out more about accessories go to:

bmw-motorrad.com/equipment

POWER SOCKETS

Notes on use of power sockets:

Automatic shutdown

The power sockets are shut down automatically under the following circumstances:

- If the battery voltage is too low to maintain the vehicle's starting capability
- If the maximum load capacity as stated in the technical data is exceeded
- During the starting operation

Connection of electrical devices

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

power supply to the sockets is switched off no more than 15 minutes after the ignition is switched off, in order to prevent overloading of the on-board electrics.

Cable routing

Note the following with regard to the routing of cables from sockets to items of electrical equipment:

- Make sure that cables do not impede the rider.
- Make sure that cables do not restrict the steering angle or obstruct handling.
- Make sure that cables cannot be trapped.

LUGGAGE

Securing luggage to motorcycle



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.

- Load correctly (▮▮▮ 82).
- Stow luggage in genuine BMW Motorrad accessories

such as panniers, for example.

» You can obtain additional information on luggage systems and how to secure them correctly from your authorised BMW Motorrad retailer.

OPTIONAL ACCESSORIES

Available optional accessories



Your authorised BMW Motorrad retailer can offer expert advice on the choice of genuine BMW parts, accessories and other produces, such as luggage systems or windscreens. You can examine all the optional accessories from BMW Motorrad by visiting: bmw-motorrad.com.

CARE

10

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CARE PRODUCTS

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



ATTENTION

Use of unsuitable cleaning and care products

Damage to vehicle parts

- Do not use solvents such as cellulose thinners, cold cleaners, fuel or the like, and do not use cleaning products that contain alcohol.



ATTENTION

Use of strongly acidic or strongly alkaline cleaning agents

Damage to vehicle parts

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

WASHING THE VEHICLE

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

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

Remove dirt from the fork legs at regular intervals.

Make sure that the vehicle is washed frequently, especially during the winter months.

To remove road salt, clean the motorcycle with cold water immediately after every trip.

 After a ride in the rain, when humidity is high or after the vehicle has been washed, condensation might form inside the headlight. This can cause temporary fogging on the headlight lens. If moisture is constantly present inside the headlight consult a specialist workshop, preferably an authorised BMW Motorrad retailer.

 **WARNING**

Wet brake discs and brake pads after vehicle wash, after riding through water and in rainy conditions

Diminished braking effect, risk of accident

- Apply the brakes in good time to allow the friction and heat to dry the brake discs and brake pads.

 **ATTENTION**

Effect of road salt intensified by warm water

Corrosion

- Use only cold water to wash off road salt.

 **ATTENTION**

Damage due to high water pressure from high pressure cleaners or steam cleaners

Corrosion or short circuit, damage to labels, seals, hydraulic brake system, electrical system and the motorcycle seat

- Exercise restraint when using a steam jet or high pressure cleaning equipment.

CLEANING EASILY DAMAGED COMPONENTS

Plastics

 **ATTENTION**

Use of unsuitable cleaning agents

Damage to plastic surfaces

- Do not use cleaning agents that contain alcohol, solvents or abrasives.
- Do not use insect-remover pads or cleaning pads with hard, scouring surfaces.

Clean the plastic parts with water and BMW plastic care product. This includes in particular:

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- Windscreen and slipstream deflectors
- Headlight lens made of plastic
- Glass cover of the instrument cluster
- Black, unpainted parts

 Soften stubborn dirt and insects by covering the affected areas with a wet cloth.

Chrome

Carefully clean chrome parts with plenty of water and motorcycle cleaner from the BMW Motorrad Care Products range. This is particularly important to counter the effects of road salt. For an additional treatment, use BMW Motorrad metal polish.

Radiator

Clean the radiator regularly to prevent overheating of the engine due to inadequate cooling. For example, use a garden hose with low water pressure.



ATTENTION

Bending of radiator fins

Damage to radiator fins

- Take care not to bend the radiator fins when cleaning.

Rubber

Treat rubber components with water or BMW rubber-care products.



ATTENTION

Application of silicone sprays to rubber seals

Damage to the rubber seals

- Do not use silicone sprays or care products that contain silicon.

CARE OF PAINTWORK

Washing the vehicle regularly will help counteract the long-term effects of substances that can damage the paint, especially if your vehicle is ridden in areas with high air pollution or natural sources of dirt, for example tree resin or pollen. Remove particularly aggressive substances immediately, however, as otherwise the paint can be affected or become discoloured. Substances of this nature include spilt fuel, oil, grease, brake fluid and bird droppings. For this, we recommend BMW Motorrad solvent cleaner followed by BMW Motorrad gloss polish for preservation. Marks on the paintwork are particularly easy to see after

TECHNICAL DATA

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TROUBLESHOOTING CHART

The engine does not start.

Possible cause	Rectification
Side stand is extended and gear is engaged.	Retract the side stand.
Clutch lever not pulled.	In neutral or if a gear is engaged, pull the clutch lever.
Fuel tank is empty.	Fuel grade (☛ 91).
Battery is flat.	Recharging connected battery (☛ 135).
Starter motor overheating protection has tripped. The starter motor can be operated for a limited time only.	Allow the starter motor to cool down for approximately 1 minute before trying again.

THREADED FASTENERS

Front wheel	Value	Valid
Brake calliper to telescopic fork		
M10 x 40 - 10.9	56 Nm	
Clamping screws in axle holder		
M8 x 35 - 8.8	Tightening sequence: Tighten screws six times in alternate sequence	
	19 Nm	
Bolt on quick-release axle		
M20 x 1,5 - 8.8	50 Nm	
Rear wheel	Value	Valid
Bolt to rear wheel quick-release axle		
M20 x 1,5 - 8.8	100 Nm	
Rear brake caliper on rear wheel swinging arm		
M10 x 40 - 10.9	56 Nm	
Exhaust system	Value	Valid
Clamp to silencer and exhaust manifold		
	24 Nm	

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Mirror arm	Value	Valid
Mirror to handlebar fitting		
M8	12 Nm	
Frame	Value	Valid
Carrier for side cover to frame		
M5 x 14 micro-encapsulated	5 Nm	

FUEL

Recommended fuel grade	 Super unleaded (max. 15% ethanol, E15)  95 ROZ/RON 90 AKI
Alternative fuel grade	 Regular, unleaded (max. 15% ethanol, E15)  91 ROZ/RON 87 AKI
Usable fuel capacity	approx. 16 l
Fuel reserve	approx. 4 l
Fuel consumption	5.6 l/100 km, in accordance with WMTc
CO2 emission	129 g/km, according to WMTc
Exhaust emissions standard	EU 5
-with Canada export ^{NV}	TIER 2, measured to FTP75

ENGINE OIL

Engine oil, capacity	approx. 4.0 l, with filter change
Engine-oil specification	SAE 15W-50, API SJ / JASO MA2, BMW Motorrad recommends BMW Motorrad ADVANTEC Pro.
Engine oil, quantity for topping up	max 0.5 l, Difference between MIN and MAX

BMW recommends  **ADVANTEC**
ORIGINAL BMW ENGINE OIL

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ENGINE

Engine number location	Crankcase bottom section, left
Engine type	A70B18A
Engine design	Air-cooled/oil-cooled 2-cylinder 4-cycle opposed-twin engine with two chain-driven camshafts located above the crankshaft
Displacement	1802 cm ³
Cylinder bore	107.1 mm
Piston stroke	100 mm
Compression ratio	9.6:1
Nominal capacity	67 kW, at engine speed: 4750 min ⁻¹
–with power reduction to 35 kW ^{OE}	35 kW, at engine speed: 4250 min ⁻¹
Torque	158 Nm, at engine speed: 3000 min ⁻¹
–with power reduction to 35 kW ^{OE}	155 Nm, at engine speed: 2000 min ⁻¹
Maximum engine speed	max 5750 min ⁻¹
Idle speed	950 ^{±50} min ⁻¹ , engine at regular operating temperature

CLUTCH

Clutch type	Single-plate dry clutch
-------------	-------------------------

TRANSMISSION

Type of transmission	Claw-switched 6-gear transmission with separate transmission housing
Transmission oil	FUCHS Titan EG 4218 SAE 70W-80
Gearbox transmission ratios	1.160, Primary transmission ratio 2.438 (39:16), 1st gear 1.696 (39:23), 2nd gear 1.296 (35:27), 3rd gear 1.065 (33:31), 4th gear 0.903 (28:31), 5th gear 0.784 (29:37), 6th gear

FINAL DRIVE

Type of final drive	Shaft drive with bevel gears
Rear axle differential oil	FUCHS Titan EG 4218 SAE 70W-80

FRAME

Frame type	Double-loop steel frame with bolt-on bottom trusses
Type plate location	Frame steering head, middle
Position of the vehicle identification number	Front frame under steering head

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CHASSIS AND SUSPENSION

Front wheel

Type of front suspension	Telescopic forks
Spring travel, front	120 mm, at front wheel

Rear wheel

Type of rear suspension	Steel double armed swinging arm
Design of the rear-wheel suspension	Direct-pivot spring strut with adjustable spring preload
Spring travel at rear wheel	90 mm, at rear wheel
Basic setting of the rear spring preload	Turn hexagon head as far as it will go counter-clockwise., filled up, with driver's weight of approx. 85 kg Turn hexagon head as far as it will go counter-clockwise, then 6 turns in clockwise direction., One-up with load of approx. 110 kg Turn hexagon head as far as it will go counter-clockwise, then 24 turns in clockwise direction., Two-up with load of approx. 200 kg

BRAKES

Front wheel

Type of front brake	Twin disc brake, diameter 300 mm, 4-piston fixed caliper
Brake-pad material, front	Sintered metal
Brake disc thickness, front	5 mm, When new min 4.5 mm, Wear limit

Rear wheel

Type of rear brake	Single-disc brake, diameter 300 mm, 4-piston fixed caliper
Brake-pad material, rear	Sintered metal
Brake disc thickness, rear	7 mm, When new min 6.5 mm, Wear limit

WHEELS AND TYRES

Recommended tyre combinations	An overview of currently approved tyres is available from your authorised BMW Motorrad retailer or on the Internet at bmw-motorrad.com/service .
Speed category, front/rear tyres	H, required at least: 210 km/h

Front wheel

Front-wheel type	Spoked wheel
Front-wheel rim size	3.5" x 19"
Tyre designation, front	120/70 R 19
Load index, front tyre	min. 54
Permissible front-wheel imbalance	max 5 g

Rear wheel

Rear-wheel type	Spoked wheel
Rear wheel rim size	5.0" x 16"
Tyre designation, rear	180/65 B16
Load index, rear tyre	min. 73
Permissible rear-wheel imbalance	max 45 g

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Tyre pressures

Tyre pressure, front	2.5 bar, Tyre cold
Tyre pressure, rear	2.9 bar, One-up, tyre cold 2.9 bar, Two-up mode with loading, with a cold tyre

ELECTRICAL SYSTEM

Fuses

Fuse 1	10 A, Anti-theft alarm system, instrument cluster, OBD connector, isolating relay, ignition switch
Fuse 2	7.5 A, Sensor box, round instrument, left multifunction switch
Main fuse	50 A, Main fuse
Fuse 4	15 A, Fuse carrier, OA connector
Electrical rating of on-board socket	5 A

Battery

Battery type	AGM
Battery rated voltage	12 V
Battery rated capacity	26 Ah

Spark plugs

Spark plugs, manufacturer and designation	NGK MAR8AI-10DS
-------------------------------------------	-----------------

Lighting

Bulb for parking light	LED
Bulbs for the low-beam headlight	LED
Bulb for high-beam headlight	LED
Bulb for tail light/brake light	LED
Bulbs for turn indicators	LED

ANTI-THEFT ALARM

Activation time on arming	approx. 30 s
Alarm duration	approx. 26 s
Battery type (For Keyless Ride radio-operated key)	CR 2032

DIMENSIONS

Length of motorcycle	2440 mm, over number-plate carrier
Height of motorcycle	1232 mm, over mirrors, at DIN unladen weight
Width of motorcycle	964 mm, with mirrors
Height of rider's seat	690 mm, measured without driver, at DIN empty weight
-with seat, high ^{OE}	710 mm, measured without driver, at DIN empty weight
Rider's inside-leg arc, heel to heel	1630 mm, measured without rider, at DIN unladen weight
-with seat, high ^{OE}	1655 mm, measured without rider, at DIN unladen weight

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WEIGHTS

Vehicle kerb weight	345 kg, DIN unladen weight, ready for road, 90 % load of fuel, without optional extras (OE)
Permissible gross vehicle weight	560 kg
Maximum payload	215 kg

PERFORMANCE FIGURES

Top speed	180 km/h
–with power reduction to 35 kW ^{OE}	156 km/h

SERVICE

12

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REPORTING SAFETY-RELEVANT DEFECTS

—with Canada export^{NV}

If you think that your motorcycle has a fault which may cause an accident, injury or death, you must inform the NHTSA (National Highway Traffic Safety Administration) immediately and BMW of North America, LLC.

If the NHTSA receives other similar complaints, it may open an investigation. If it finds that a safety defect exists in a group of vehicles, the NHTSA may order the manufacturer to perform a recall and remedy campaign. However, the NHTSA cannot become involved in individual problems between you, your retailer, or BMW of North America, LLC.

You can contact the NHTSA by calling the Vehicle Safety hotline on 1-888-327-4236 (teletypewriter TTY for the hearing impaired: 1-800-424-9153) for free, by visiting the website at [http:// www.safercar.gov](http://www.safercar.gov) or by writing to Administrator, NHTSA, 400 Seventh Street, SW., Washington, DC 20590. Further information on vehicle safety is available at [http:// www.safercar.gov](http://www.safercar.gov).

Canadian customers who wish to report a safety-related defect to Transport Canada, Defect Investigations and Recalls can call the toll-free hotline 1-800-333-0510. You can also obtain other information about motor vehicle safety from [http:// www.tc.gc.ca/roadsafety](http://www.tc.gc.ca/roadsafety).

BMW MOTORRAD SERVICE

BMW Motorrad has an extensive network of retailers in place to look after you and your motorcycle in more than 100 countries. Authorised BMW Motorrad retailers have the technical information and the technical know-how to carry out reliably all preventive maintenance and repair work on your BMW.

You can locate the nearest authorised BMW Motorrad retailer by visiting our website: bmw-motorrad.com.



WARNING

Maintenance and repair work not in compliance with correct procedure

Risk of accident due to consequential damage

- BMW Motorrad recommends having work of this nature carried out on the vehicle by a specialist workshop, preferably an authorised BMW Motorrad dealer.

In order to help ensure that your BMW is always in optimum condition, BMW Motorrad recommends compliance with the maintenance intervals specified for your motorcycle.

Have all maintenance and repair work carried out confirmed in the "Service" chapter in this manual. Evidence of regular preventive maintenance is essential for generous treatment of claims submitted after the warranty period has expired.

Your authorised BMW Motorrad retailer can provide information on BMW Motorrad services and the work undertaken as part of each service.

BMW MOTORRAD SERVICE HISTORY

Entries

Maintenance work that has been carried out is entered in the proof of maintenance. The entries are like a Service 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

170 SERVICE

systems of BMW AG, Munich, Germany.

If there is a change in vehicle ownership, the data saved in the electronic service booklet can also be viewed by the new vehicle owner. A BMW Motorrad retailer or a specialist workshop can also view data that is stored in the electronic service booklet.

Objection

The vehicle owner can object to entries being made by the BMW Motorrad retailer or a specialist workshop in the 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 the owner of a new BMW motorcycle, in the event of a breakdown you can benefit from the protection afforded by the various BMW Motorrad mobility services (e.g. BMW Mobile Service, breakdown

service, vehicle recovery service).

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

MAINTENANCE WORK

BMW pre-delivery check

Your authorised BMW Motorrad retailer conducts the BMW pre-delivery check before handing over the vehicle to you.

BMW Running-in check

The BMW running-in check has to be performed when the vehicle has covered between 500 km and 1200 km.

BMW Motorrad Service

The BMW Motorrad Service is carried out once a year; the extent of servicing can vary, depending on the age of the vehicle and the distance it has covered. Your authorised BMW Motorrad retailer confirms that the service work has been carried out and enters the date when the next service will be due.

Riders who cover long distances in a year might have to bring in their vehicles for service before the next sched-

uled date. It is to allow for these cases that a maximum odometer reading is entered as well in the confirmation of service. Servicing has to be brought forward if this odometer reading is reached before the next scheduled date for the service.

The service display in the multifunction display reminds you about one month or 1000 km in advance when the time for a service is approaching, on the basis of the programmed values.

To find out more about service go to:

bmw-motorrad.com/service

The maintenance tasks necessary for your vehicle are set out in the maintenance schedule below.

172 SERVICE

MAINTENANCE SCHEDULE

	500 -1200 km 300 - 750 mls	10 000 km 6 000 mls	20 000 km 12 000 mls	30 000 km 18 000 mls	40 000 km 24 000 mls	50 000 km 30 000 mls	60 000 km 36 000 mls	70 000 km 42 000 mls	80 000 km 48 000 mls	90 000 km 54 000 mls	100 000 km 60 000 mls	12 months	24 months
1	X												
2												X	
3		X	X	X	X	X	X	X	X	X	X	X ^a	
4		X	X	X	X	X	X	X	X	X	X		
5		X	X	X	X	X	X	X	X	X	X		
6			X		X		X		X		X		
7			X		X		X		X		X		X ^b
8					X				X			X ^c	X ^c
9												X ^d	X ^d

- 1 Oil change (incl. engine and bevel gears rear)
- 2 BMW Motorrad Service, standard scope
- 3 Engine-oil change, with filter
- 4 Replace air-filter element
- 5 Check valve clearances
- 6 Replace all spark plugs
- 7 Oil change in bevel gears rear
- 8 Change transmission oil
- 9 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 or 40000 km (whichever comes first)

^d for the first time after one year, then every two years

MAINTENANCE CONFIRMATIONS

BMW Motorrad Service standard scope

The tasks included in the BMW_Motorrad Service standard scope are listed below. The actual scope of maintenance work applicable for your vehicle may vary.

- Performing vehicle test with BMW Motorrad diagnosis system
- Visual inspection of clutch system
- Checking steering-head bearing
- 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
- Draining the condensate hose
- Checking tyre pressure and tread depth
- Check the side stand's ease of movement
- Checking spoke tension, adjusting if necessary
- Check lighting and signalling system
- Function test, engine start suppression
- Checking battery state of charge
- Final inspection and check for road safety
- Setting service-due date and countdown distance with BMW Motorrad diagnosis system
- Confirming BMW Motorrad service in on-board literature

174 SERVICE

BMW pre-delivery check
carried out

on _____

Stamp, signature

BMW Running-in Check
carried out

on _____

odometer reading _____

Next service

at the latest

on _____

or, when reached earlier

odometer reading _____

Stamp, signature

BMW Motorrad service

carried out

on _____

odometer reading _____

Next service

at the latest

on _____

or, when reached earlier

odometer reading _____

Work performed

	Yes	No
BMW Motorrad service	<input type="checkbox"/>	<input type="checkbox"/>
Oil change, engine, with filter	<input type="checkbox"/>	<input type="checkbox"/>
Renewing air cleaner insert	<input type="checkbox"/>	<input type="checkbox"/>
Checking valve clearance	<input type="checkbox"/>	<input type="checkbox"/>
Renewing all spark plugs	<input type="checkbox"/>	<input type="checkbox"/>
Oil change in rear bevel gears	<input type="checkbox"/>	<input type="checkbox"/>
Change gearbox oil	<input type="checkbox"/>	<input type="checkbox"/>
Changing brake fluid, front brakes	<input type="checkbox"/>	<input type="checkbox"/>
Changing brake fluid, rear brakes	<input type="checkbox"/>	<input type="checkbox"/>

Notes

Stamp, signature

176 SERVICE

BMW Motorrad service

carried out

on _____

odometer reading _____

Next service

at the latest

on _____

or, when reached earlier

odometer reading _____

Work performed

	Yes	No
BMW Motorrad service	<input type="checkbox"/>	<input type="checkbox"/>
Oil change, engine, with filter	<input type="checkbox"/>	<input type="checkbox"/>
Renewing air cleaner insert	<input type="checkbox"/>	<input type="checkbox"/>
Checking valve clearance	<input type="checkbox"/>	<input type="checkbox"/>
Renewing all spark plugs	<input type="checkbox"/>	<input type="checkbox"/>
Oil change in rear bevel gears	<input type="checkbox"/>	<input type="checkbox"/>
Change gearbox oil	<input type="checkbox"/>	<input type="checkbox"/>
Changing brake fluid, front brakes	<input type="checkbox"/>	<input type="checkbox"/>
Changing brake fluid, rear brakes	<input type="checkbox"/>	<input type="checkbox"/>

Notes

Stamp, signature

BMW Motorrad service

carried out

on _____

odometer reading _____

Next service

at the latest

on _____

or, when reached earlier

odometer reading _____

Work performed

	Yes	No
BMW Motorrad service	<input type="checkbox"/>	<input type="checkbox"/>
Oil change, engine, with filter	<input type="checkbox"/>	<input type="checkbox"/>
Renewing air cleaner insert	<input type="checkbox"/>	<input type="checkbox"/>
Checking valve clearance	<input type="checkbox"/>	<input type="checkbox"/>
Renewing all spark plugs	<input type="checkbox"/>	<input type="checkbox"/>
Oil change in rear bevel gears	<input type="checkbox"/>	<input type="checkbox"/>
Change gearbox oil	<input type="checkbox"/>	<input type="checkbox"/>
Changing brake fluid, front brakes	<input type="checkbox"/>	<input type="checkbox"/>
Changing brake fluid, rear brakes	<input type="checkbox"/>	<input type="checkbox"/>

Notes

Stamp, signature

178 SERVICE

BMW Motorrad service

carried out

on _____

odometer reading _____

Next service

at the latest

on _____

or, when reached earlier

odometer reading _____

Work performed

	Yes	No
BMW Motorrad service	<input type="checkbox"/>	<input type="checkbox"/>
Oil change, engine, with filter	<input type="checkbox"/>	<input type="checkbox"/>
Renewing air cleaner insert	<input type="checkbox"/>	<input type="checkbox"/>
Checking valve clearance	<input type="checkbox"/>	<input type="checkbox"/>
Renewing all spark plugs	<input type="checkbox"/>	<input type="checkbox"/>
Oil change in rear bevel gears	<input type="checkbox"/>	<input type="checkbox"/>
Change gearbox oil	<input type="checkbox"/>	<input type="checkbox"/>
Changing brake fluid, front brakes	<input type="checkbox"/>	<input type="checkbox"/>
Changing brake fluid, rear brakes	<input type="checkbox"/>	<input type="checkbox"/>

Notes

Stamp, signature

BMW Motorrad service

carried out

on _____

odometer reading _____

Next service

at the latest

on _____

or, when reached earlier

odometer reading _____

Work performed

	Yes	No
BMW Motorrad service	<input type="checkbox"/>	<input type="checkbox"/>
Oil change, engine, with filter	<input type="checkbox"/>	<input type="checkbox"/>
Renewing air cleaner insert	<input type="checkbox"/>	<input type="checkbox"/>
Checking valve clearance	<input type="checkbox"/>	<input type="checkbox"/>
Renewing all spark plugs	<input type="checkbox"/>	<input type="checkbox"/>
Oil change in rear bevel gears	<input type="checkbox"/>	<input type="checkbox"/>
Change gearbox oil	<input type="checkbox"/>	<input type="checkbox"/>
Changing brake fluid, front brakes	<input type="checkbox"/>	<input type="checkbox"/>
Changing brake fluid, rear brakes	<input type="checkbox"/>	<input type="checkbox"/>

Notes

Stamp, signature

180 SERVICE

BMW Motorrad service

carried out

on _____

odometer reading _____

Next service

at the latest

on _____

or, when reached earlier

odometer reading _____

Work performed

	Yes	No
BMW Motorrad service	<input type="checkbox"/>	<input type="checkbox"/>
Oil change, engine, with filter	<input type="checkbox"/>	<input type="checkbox"/>
Renewing air cleaner insert	<input type="checkbox"/>	<input type="checkbox"/>
Checking valve clearance	<input type="checkbox"/>	<input type="checkbox"/>
Renewing all spark plugs	<input type="checkbox"/>	<input type="checkbox"/>
Oil change in rear bevel gears	<input type="checkbox"/>	<input type="checkbox"/>
Change gearbox oil	<input type="checkbox"/>	<input type="checkbox"/>
Changing brake fluid, front brakes	<input type="checkbox"/>	<input type="checkbox"/>
Changing brake fluid, rear brakes	<input type="checkbox"/>	<input type="checkbox"/>

Notes

Stamp, signature

BMW Motorrad service

carried out

on _____

odometer reading _____

Next service

at the latest

on _____

or, when reached earlier

odometer reading _____

Work performed

	Yes	No
BMW Motorrad service	<input type="checkbox"/>	<input type="checkbox"/>
Oil change, engine, with filter	<input type="checkbox"/>	<input type="checkbox"/>
Renewing air cleaner insert	<input type="checkbox"/>	<input type="checkbox"/>
Checking valve clearance	<input type="checkbox"/>	<input type="checkbox"/>
Renewing all spark plugs	<input type="checkbox"/>	<input type="checkbox"/>
Oil change in rear bevel gears	<input type="checkbox"/>	<input type="checkbox"/>
Change gearbox oil	<input type="checkbox"/>	<input type="checkbox"/>
Changing brake fluid, front brakes	<input type="checkbox"/>	<input type="checkbox"/>
Changing brake fluid, rear brakes	<input type="checkbox"/>	<input type="checkbox"/>

Notes

Stamp, signature

182 SERVICE

BMW Motorrad service

carried out

on _____

odometer reading _____

Next service

at the latest

on _____

or, when reached earlier

odometer reading _____

Work performed

	Yes	No
BMW Motorrad service	<input type="checkbox"/>	<input type="checkbox"/>
Oil change, engine, with filter	<input type="checkbox"/>	<input type="checkbox"/>
Renewing air cleaner insert	<input type="checkbox"/>	<input type="checkbox"/>
Checking valve clearance	<input type="checkbox"/>	<input type="checkbox"/>
Renewing all spark plugs	<input type="checkbox"/>	<input type="checkbox"/>
Oil change in rear bevel gears	<input type="checkbox"/>	<input type="checkbox"/>
Change gearbox oil	<input type="checkbox"/>	<input type="checkbox"/>
Changing brake fluid, front brakes	<input type="checkbox"/>	<input type="checkbox"/>
Changing brake fluid, rear brakes	<input type="checkbox"/>	<input type="checkbox"/>

Notes

Stamp, signature

BMW Motorrad service

carried out

on _____

odometer reading _____

Next service

at the latest

on _____

or, when reached earlier

odometer reading _____

Work performed

	Yes	No
BMW Motorrad service	<input type="checkbox"/>	<input type="checkbox"/>
Oil change, engine, with filter	<input type="checkbox"/>	<input type="checkbox"/>
Renewing air cleaner insert	<input type="checkbox"/>	<input type="checkbox"/>
Checking valve clearance	<input type="checkbox"/>	<input type="checkbox"/>
Renewing all spark plugs	<input type="checkbox"/>	<input type="checkbox"/>
Oil change in rear bevel gears	<input type="checkbox"/>	<input type="checkbox"/>
Change gearbox oil	<input type="checkbox"/>	<input type="checkbox"/>
Changing brake fluid, front brakes	<input type="checkbox"/>	<input type="checkbox"/>
Changing brake fluid, rear brakes	<input type="checkbox"/>	<input type="checkbox"/>

Notes

Stamp, signature

184 SERVICE

BMW Motorrad service

carried out

on _____

odometer reading _____

Next service

at the latest

on _____

or, when reached earlier

odometer reading _____

Work performed

	Yes	No
BMW Motorrad service	<input type="checkbox"/>	<input type="checkbox"/>
Oil change, engine, with filter	<input type="checkbox"/>	<input type="checkbox"/>
Renewing air cleaner insert	<input type="checkbox"/>	<input type="checkbox"/>
Checking valve clearance	<input type="checkbox"/>	<input type="checkbox"/>
Renewing all spark plugs	<input type="checkbox"/>	<input type="checkbox"/>
Oil change in rear bevel gears	<input type="checkbox"/>	<input type="checkbox"/>
Change gearbox oil	<input type="checkbox"/>	<input type="checkbox"/>
Changing brake fluid, front brakes	<input type="checkbox"/>	<input type="checkbox"/>
Changing brake fluid, rear brakes	<input type="checkbox"/>	<input type="checkbox"/>

Notes

Stamp, signature

DECLARATION OF CONFORMITY	189
CERTIFICATE FOR ELECTRONIC IMMOBILISER	194
CERTIFICATE FOR KEYLESS RIDE	197

DECLARATION OF CONFORMITY

Simplified EU Declaration of Conformity under RED (2014/53/EU).



Vehicular immobilizer system transceiver EWS4

Technical information

Frequency band: 134 kHz
 Transponder: TMS37145 / TypeDST80, TMS3705 Transponder Base Station IC
 Output Power: 50 dB μ V/m

Manufacturer

BECOM Electronics GmbH
 Technikerstraße 1, A-7442
 Hochstraß, Austria

Hereby, BECOM Electronics GmbH declares that the vehicular immobilizer system transceiver EWS4 is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet ad-

dress:

bmw-motorrad.com/certification

Keyless Ride HUF5750

Technical information

Frequency band: 434,42 MHz
 Transmission Power: 10 mW

Manufacturer

Huf Hüsbeck & Fürst GmbH & Co. KG
 Steeger Str. 17, 42551 Velbert, Germany

Hereby, Huf Hüsbeck & 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: **bmw-motorrad.com/certification**

Keyless Ride HUF8465

Technical information

Frequency band: 134,45 kHz
 Output Power: 42 dB μ V/m

Manufacturer

Huf Hüsbeck & Fürst GmbH & Co. KG
 Steeger Str. 17, 42551 Velbert, Germany

190 APPENDIX

Hereby, Huf Hüsbeck & Fürst GmbH & Co. KG declares that the radio equipment type HUF8465 is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address:

bmw-motorrad.com/certification

Anti-theft alarm (DWA)

TXBMWMR

Technical information

Frequency band: 433.05 MHz - 434.79 MHz

Output power: 10 mW e.r.p.

Manufacturer

Meta System S.p.A.
Via Galimberti 5, 42124 Reggio Emilia, Italy

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:

bmw-motorrad.com/certification

Tyre pressure control (RDC) BC5A4

Technical information

Frequency band: 433.895 - 433.945 MHz

Output Power: <10 mW e.r.p.

Manufacturer

Schrader Electronics Ltd.
Technology Park, N. Ireland
BT41 1QS Antrim, 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:

bmw-motorrad.com/certification

Wireless charging device

WCA Motorrad-Ladestauaufach

Technical information

Frequency band: 110 kHz - 115 kHz

Output power: < 6 W

Manufacturer

Bury Sp. z o.o.
ul. Wojska Polskiego 4, 39-300 Mielec, Poland

Hereby, Bury Sp. z o.o. declares that the radio equipment type WCA Motorrad-Ladestafach is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address:

bmw-motorrad.com/certification

TFT instrument cluster ICC6.5in

Technical information

BT operating frq. Range: 2402 MHz - 2480 MHz

BT version: 4.2 (no BTLE)

BT output power: < 4 dBm

WLAN operating frq. Range: 2412 MHz - 2462 MHz

WLAN standards: IEEE 802.11 b/g/n

WLAN output power: < 20 dBm

Manufacturer

Robert Bosch Car Multimedia GmbH
Robert Bosch Str. 200, 31139 Hildesheim, Germany

Hereby, Robert Bosch Car Multimedia GmbH declares that the radio equipment type ICC6.5in is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the

following internet address:
bmw-motorrad.com/certification

TFT instrument cluster ICC10in

Technical information

The ICC10in can operate in one of two operating modes:

1. Normal mode, with Bluetooth and WLAN on, and
2. Radio off mode (only available during vehicle manufacturing).

BT operating frq. Range: 2402 MHz - 2480 MHz

BT version: 4.2 (no BTLE)

BT output power: < +4 dBm (internal antenna)

WLAN operating frq. Range: 2402 MHz - 2472 MHz

WLAN standards: IEEE 802.11 b/g/n

WLAN output power: <+14 dBm (internal antenna)

Manufacturer

Robert Bosch GmbH
Robert-Bosch-Platz 1, 70839 Gerlingen, Germany

Hereby, Robert Bosch GmbH declares that the radio equipment type ICC10in is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address:

192 APPENDIX

bmw-motorrad.com/certification

Intelligent emergency call TPM E-CALL EU

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

Robert Bosch Car Multimedia GmbH

Robert Bosch Str. 200, 31139 Hildesheim, Germany

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 ad-

dress:

bmw-motorrad.com/certification

Mid Range Radar MRRe14FCR

Technical information

Frequency band: 76 - 77 GHz
Nominal radiated power: e.i.r.p. (peak detector): 32 dBm
Nominal radiated power:e.i.r.p. (RMS detector): 27 dBm

Manufacturer

Robert Bosch GmbH
Robert-Bosch-Platz 1, 70839 Gerlingen, Germany

Hereby, Robert Bosch GmbH declares that the radio equipment type MRRe14FCR is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address:

bmw-motorrad.com/certification

Audio system MCR001 Manufacturer

ALPS ALPINE CO., LTD.

Hereby, ALPS ALPINE CO., LTD. declares that the radio equipment type MCR001 is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following in-

ternet address:

**bmw-motorrad.com/certifica-
tion**

Declaration of Conformity

Radio equipment electronic immobiliser (EWS4)

For all countries without EU

Technical information

Frequency Band: 134 kHz
(Transponder: TMS37145 /
Type DST80, TMS3705
Transponder Base Station IC)
Output Power: 50 dB μ V/m

Manufacturer and Address

Manufacturer:
BECOM Electronics GmbH
Address: Technikerstraße 1,
A-7442 Hochstraß

Argentina

 **RAMATEL**

H-25246

Australia/New Zealand



R-NZ

Brunei



TA No: DTA-007061

United Arab Emirates

TRA
REGISTERED No:
ER89926/20

DEALER No:
DA96133I20

Philippiens



NTC

Type Approved
No.: ESD-RCE-2023298

South Africa



TA-2020/6131

APPROVED

India

ETA-SD-20200905860

Belarus



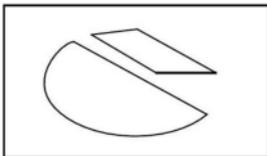
Indonesia

72790/SDPPI/2021
13349



Dilarang melakukan perubahan
Spesifikasi yang dapat
Menimbulkan gangguan fisik
dan/atau elektromagnetik
terhadap lingkungan sekitarnya

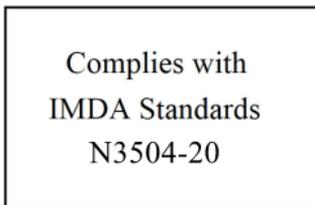
Paraguay



CONATEL

NR: 2020-11-I-0834

Singapore



Taiwan



低功 電波 射性電機管 辦法
第十二條 經型式認證合格之低
功率射頻電機，非經許可，公
司、商號或使用者均不得擅 自變
更頻率、加大功率或變更原設計
之特性及 功能。第十四條 低功
率射頻電機之使用不 得影響飛航
安全及干擾合法通信；經發現有
干 擾現象時，應立即停用，並改
善至無干擾時方 得繼續使用。前
項合法通信，指依電信法規定作
業之無線電 通信。

Malaysia



RFCL/47A/0920/S(20-3358)

Israel

מספר אישור אלחוטני של משרד התקשורת הוא
51-74908
אסור להחליף את האנטנה המקורית של המכשיר
ולא
לעשות בו כל שינוי טכני אחר

United States (USA)

Contains FCC ID:

ODE-MREWS5012

FCC § 15.19 Labelling requirements

This device complies with part 15 of the FCC Rules and Industry Canada's licence-exempt RSS standard(s). Operation is subject to the following two conditions:

- (1) this device may not cause interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC § 15.21 Information to user

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

RF Exposure Requirements

To comply with FCC RF exposure compliance requirements, the device must be installed to provide a separation distance of at least 20 cm from all persons.

Serbia



P1620118300

Canada

Contains IC:

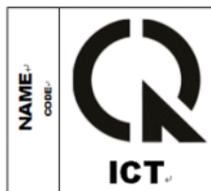
10430A-MREWS5012

This device complies with part 15 of the FCC Rules and Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:

- (1) this device may not cause interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Vietnam



A1109091120AF04A3

Certifications

BMW Keyless Ride ID Device



USA, Canada:

Product name: BMW Keyless Ride ID
Device FCC ID: YGOHUF5750
IC: 4008C-HUF5750



Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Canada:

Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

USA:

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

Argentina:

CNC COMISIÓN NACIONAL
DE COMUNICACIONES

H-17115

Declaration Of Conformity

We declare under our responsibility that the product

BMW Keyless Ride ID Device (Model: HUF5750)

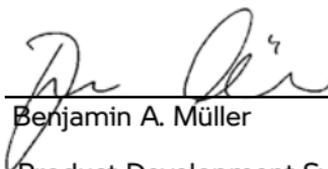
complies with the appropriate essential requirements of the article 3 of the R&TIE and the other relevant provisions, when used for its intended purpose. Applied Standards:

1. Health and safety requirements contained in article 3 (1) a)
 - EN 60950-1:2006+A11:2009+A1:2010+A12:2011; Information technology equipment-Safety
2. Protection requirements with respect to electromagnetic compatibility article 3 (1) b)
 - EN 301 489-1 (V1 .9.2, 09/2011), Electromagnetic compatibility and radio spectrum matters (ERM); Electromagnetic compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements
 - EN 301 489-3 (V1.4.1, 08/2002) Electromagnetic compatibility and radio spectrum matters (ERM); Electromagnetic compatibility (EMC) standard for radio equipment and services; Part 3: Specific conditions for short range devices (SRD) operating on frequencies between 9 kHz and 40 GHz
3. Means of the efficient use of the radio frequency spectrum article 3 (2)
 - EN 300 220-1 & -2 (V2.4.1, 05/2012), electromagnetic compatibility and radio spectrum matters (ERM); Short range devices (SRD); Radio equipment to be 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 of the R&TIE directive

The product is labeled with the CE marking:

CE

Velbert, October 15th, 2013



Benjamin A. Müller

Product Development Systems
Car Access and Immobilization -
Electronics Huf Hülsbeck & Fürst
GmbH & Co. KG
Steeger Straße 17, D-42551
Velbert

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Details described or illustrated in this booklet may differ from the vehicle's actual specification as purchased, the accessories fitted or the national-market specification. No claims will be entertained as a result of such discrepancies.

Dimensions, weights, fuel consumption and performance data are quoted to the customary tolerances.

The right to modify designs, equipment and accessories is reserved.

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Important data for refuelling:

Fuel

Recommended fuel grade	 Super unleaded (max. 15% ethanol, E15)  95 ROZ/RON 90 AKI
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Alternative fuel grade	 Regular, unleaded (max. 15% ethanol, E15)  91 ROZ/RON 87 AKI
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Usable fuel capacity	approx. 16 l
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Fuel reserve	approx. 4 l
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Tyre pressures

Tyre pressure, front	2.5 bar, Tyre cold
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Tyre pressure, rear	2.9 bar, One-up, tyre cold 2.9 bar, Two-up mode with loading, with a cold tyre
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For further information on all aspects of your vehicle, visit: bmw-motorrad.com

