

The Ultimate Riding Machine

Rider's Manual

K 1600 GTL

Vehicle data/dealership details

Vehicle data

Model

Vehicle Identification Number

Colour code

Date of first registration

Registration number

Dealership details

Person to contact in Service department

Ms/Mr

Phone number

Dealership address/phone number (company stamp)

Welcome to BMW

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

About this Rider's Manual

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

Suggestions and criticism

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

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

BMW Motorrad.

01 40 8 387 661



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General instructions

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Overview

Chapter 2 of this Rider's Manual will provide you with an initial overview of your motorcycle. All maintenance and repair work on the vehicle is documented in Chapter 11. This record of the maintenance work you have had performed on your vehicle is a precondition for generous treatment of goodwill claims.
When the time comes to sell your BMW, please remember to hand over this Rider's Manual; it is an important part of the motorcycle.

Abbreviations and symbols

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

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

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

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

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

◄ Indicates the end of an item of information.

• Instruction.

» Result of an activity.

Reference to a page with more detailed information.

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

Tightening torque.

Technical data.

ABS Anti-lock brake system.

D-ESA Electronic chassis and suspension adjustment.

DTC Dynamic Traction Control.

DWA Anti-theft alarm (Diebstahlwarnanlage).

EWS Electronic immobiliser.

NV National-market version.

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

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

RDC Tyre pressure monitoring.

Equipment

When you ordered your BMW motorcycle, you chose various items of custom equipment. This Rider's Manual describes optional extras (OE) offered by BMW and selected optional accessories (OA). This explains why the manual may also contain descriptions of equipment which you have not ordered. Please note, too, that your motorcycle might not be exactly as illustrated in this manual on account of country-specific differences. If your BMW was supplied with equipment not described in this Rider's Manual, you will find these features described in separate manuals.

Technical data

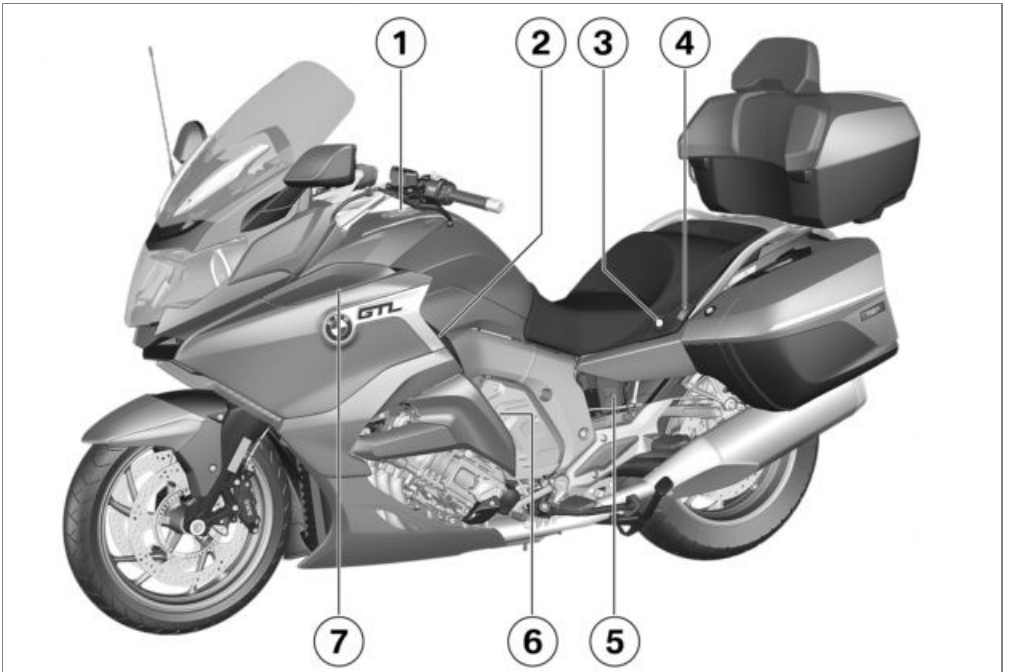
All dimensions, weights and power ratings stated in the Rider's Manual are quoted to the standards and comply with the tolerance requirements of the Deutsches Institut für Normung e.V. (DIN). Versions for individual countries may differ.

Actuality

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 this manual.

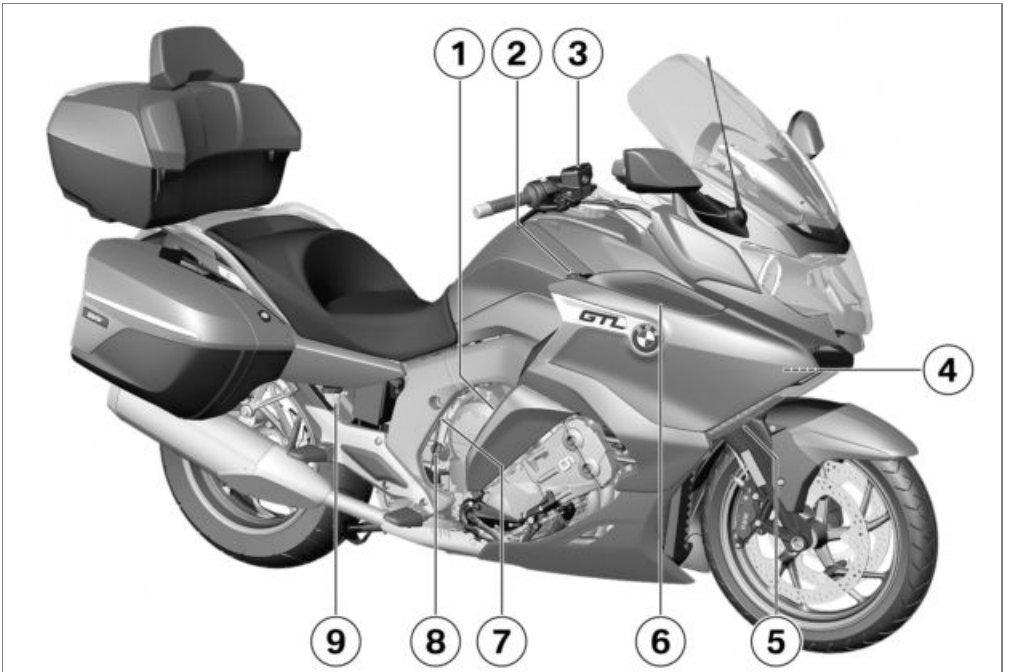
General views

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Multifunction switch, right 17
Multifunction switch, right 18
Instrument panel 19


1
2
3
4
7
6
5

General view, left side

1 Fuel filler neck (➠ 107)
2 Operating panel for the audio system (see separate operating instructions)
3 Seat lock (➠ 89)
4 Rocker switch for passenger seat heating (➠ 88)
5 Payload table
Tyre pressure table
6 Storage compartment (➠ 90)
7 Slipstream deflector (➠ 95)

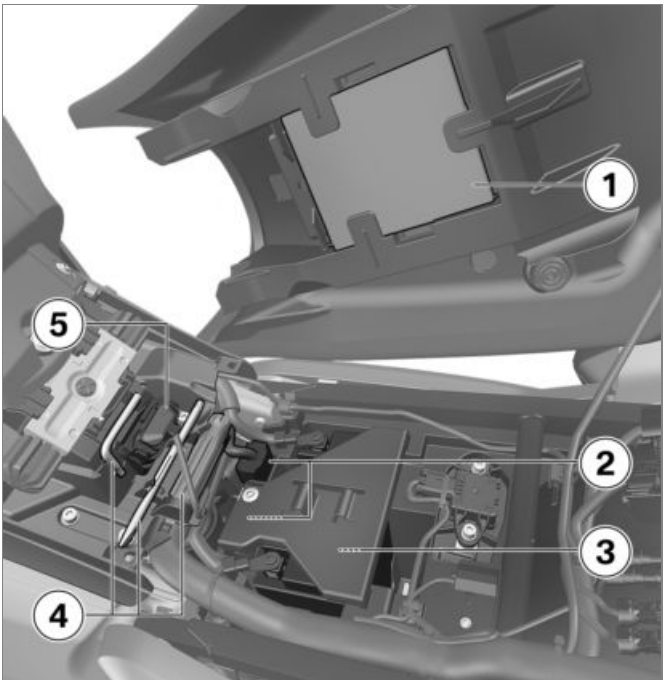

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GTL

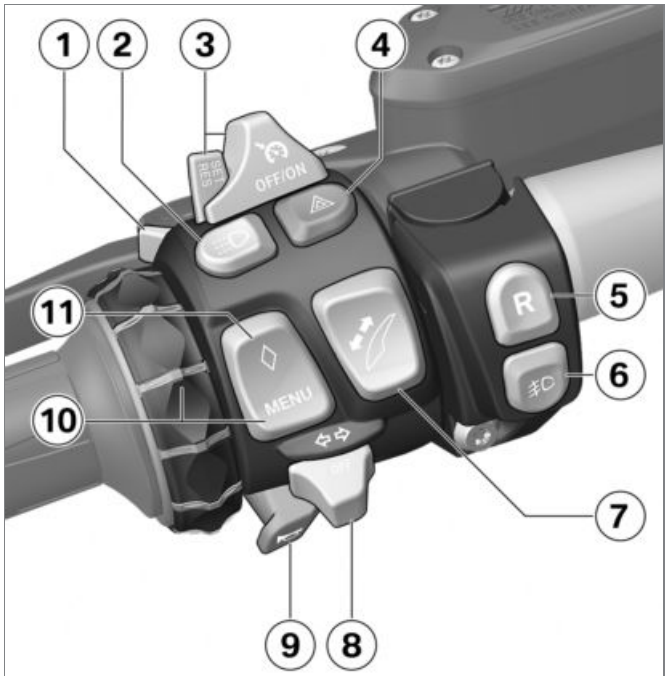
General view, right side

1 Storage compartment (➠ 90)
2 Power socket (➠ 156)
3 Brake-fluid tank, front (➠ 131)
4 Coolant level indicator (behind side panel) (➠ 133)
5 Type plate (on the front suspension)
6 Slipstream deflector (➠ 95)
7 Engine number (above the engine oil filler opening)
Vehicle identification number (above the engine oil filler opening on the rear part of the main frame)
8 Engine oil filler opening and oil dipstick (➠ 128)
9 Brake-fluid reservoir, rear (➠ 132)

Underneath the seat

1 Rider's Manual
2 Fuses (➠ 151)
3 Battery (➠ 148)
4 Standard toolkit (➠ 126)
5 Diagnostic connector (➠ 152)

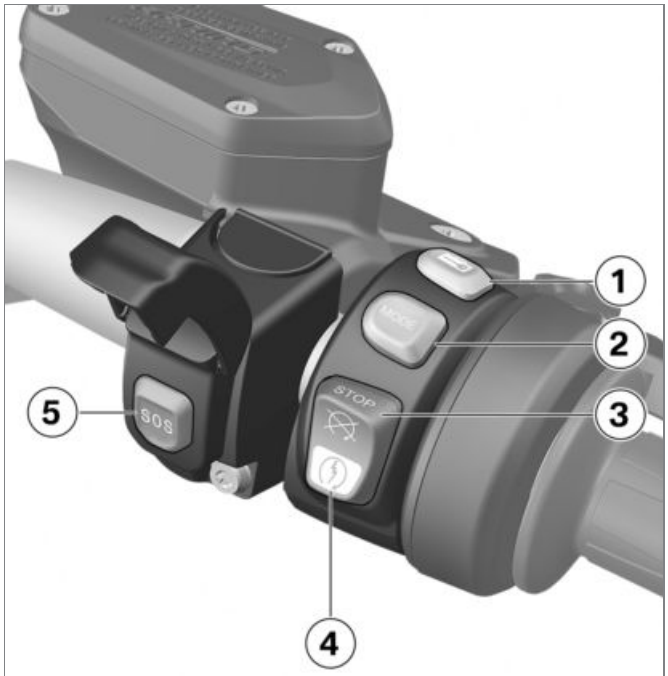




Multifunction switch, left

1 High-beam headlight and headlight flasher (➠ 63)
2 Daytime riding light (➠ 65)
3 Cruise-control system (➠ 80)
4 Hazard warning lights system (➠ 66)
5 Reverser (➠ 61)
6 Auxiliary headlights (➠ 64)
7 Windscreen (➠ 94)
8 Turn indicators (➠ 67)
9 Horn
10 Multi-Controller and MENU button
Multifunction display (➠ 67)
Audio system (see the appropriate operating instructions)
DTC (➠ 78)
ESA (➠ 79)

11 Selecting the favourites menu (➠ 71).



Multifunction switch, right

– with intelligent emergency call OE

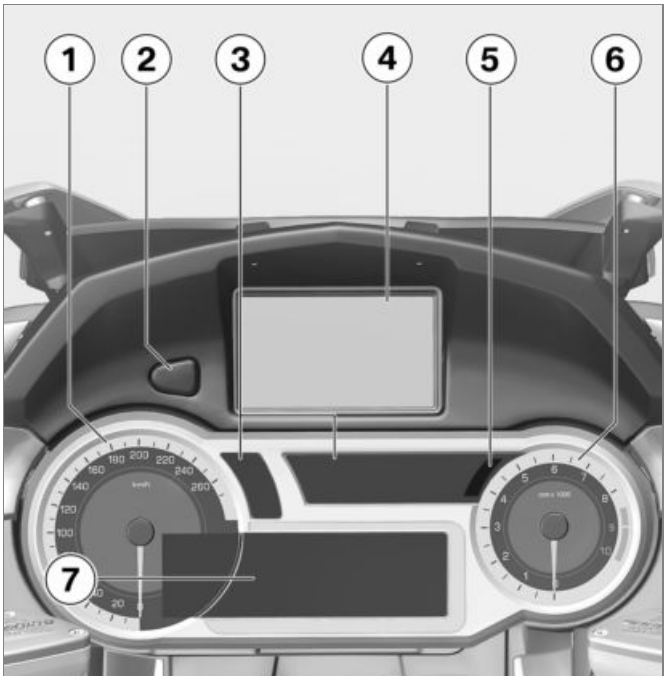
1 Central locking (➠ 83)
2 Selecting the riding mode (➠ 79)
3 Emergency off switch (kill switch) (➠ 58)
4 Start engine (➠ 100)
5 Intelligent emergency call (➠ 59)

Multifunction switch, right

– without intelligent emergency call OE

1 Central locking (➠ 83)
2 Selecting the riding mode (➠ 79)
3 Emergency off switch (kill switch) (➠ 58)
4 Start engine (➠ 100)





Instrument panel

1 Speedometer
2 with preparation for navigation device OE
Release for navigation slot
3 Indicator and warning lights (➠ 22)
4 Navigation device (➠ 162)
5 Ambient-light brightness sensor (for adapting the brightness of the instrument lighting)
6 Engine speed display
7 Multifunction display (➠ 25)

NOTICE

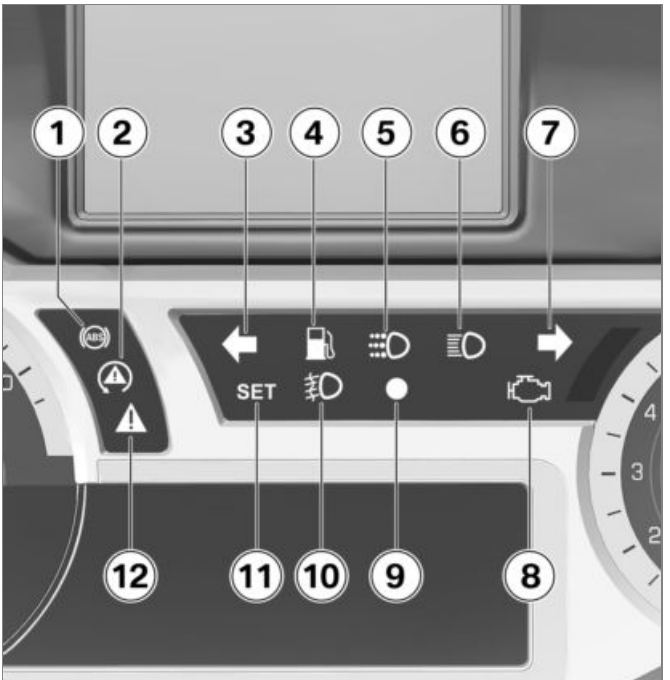
The brightness of the warning lights and indicator lights, the display and the instrument needle and gauge lighting is adapted automatically to suit ambient brightness.◀

Status indicators

Indicator and warning lights 22
Meaning of symbols 23
Multifunction display 25
Warnings 26

Indicator and warning lights

1 ABS (➠ 43)
2 DTC (➠ 44)
3 Turn indicators, left
4 Fuel reserve (➠ 45)
5 Daytime riding light
6 High-beam headlight
7 Turn indicators, right
8 Malfunction indicator lamp (➠ 35)
9 DWA (➠ 74)
10 Auxiliary headlights (➠ 64)
11 Cruise-control system (➠ 80)
12 General warning light, in combination with warning symbols on the display (➠ 26)



Meaning of symbols



Meaning of the symbols at repair position **1**:

Average consumption since the last reset (➠ 72)

Current consumption

Range with the available fuel quantity (➠ 44)

Average speed since the last reset (➠ 72)

Ambient temperature (➠ 34)

– with tyre pressure control (RDC)[OE]

Tyre pressures (➠ 37)

Stopwatch (➠ 72)

Travelling times (➠ 73)

Date (figure depends on adjusted time format) (➠ 71)

On-board voltage

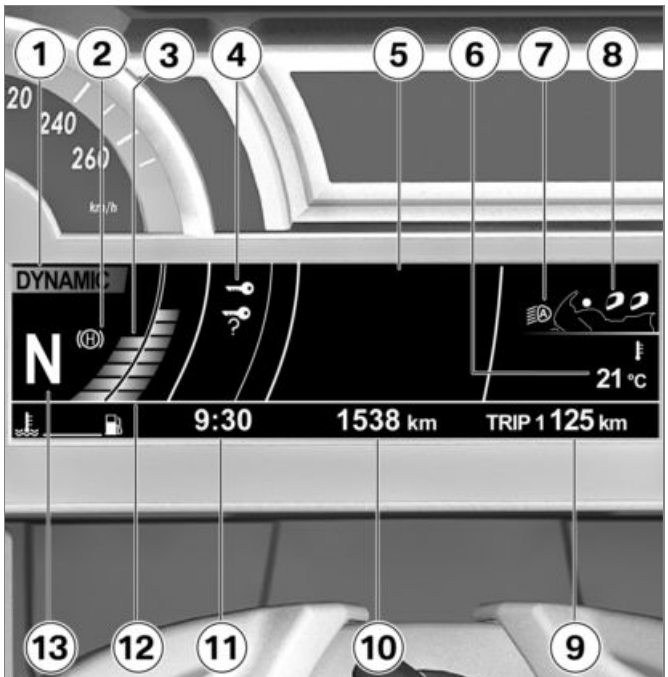
Oil level (➠ 37)



2 Passenger seat heating switched on
3 Heated grips switched on
4 Rider's seat heating switched on



5 Damping action
6 Loading



Multifunction display

1 Riding mode (➠ 79)

2 – with Hill Start Control OE
Operate Hill Start Control (➠ 82).

3 Coolant temperature

4 Warnings (➠ 26)

5 Menu area (➠ 67)
Area for audio system displays
– with intelligent emergency call OE
Area for emergency call system displays (➠ 48)

6 On-board computer (➠ 72)
– with tyre pressure control (RDC) OE
RDC displays

7 Daytime riding light (➠ 65)

8 Seat heating (➠ 88)
Grip heating (➠ 87)
ESA settings (➠ 79)

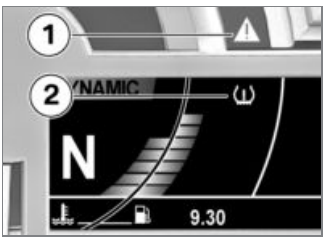
9 Trip distance (➠ 73)

10 Total distance travelled
11 Clock (➠ 71)
12 Fuel level
13 Gear indicator; "N" indicates neutral

Warnings

Mode of presentation

Warnings are indicated by the corresponding warning lights.



Warnings for which there is no dedicated warning light are indicated by 'General' warning light **1** showing in combination with a warning symbol such as, for example, **2** appearing in the multifunction display. The 'General' warning light shows red or yellow, depending on the urgency of the warning.

Up to four warning symbols can be displayed at any given time. The status of the 'General' warning light matches the most urgent warning.
The possible warnings are listed on the next pages.

Warnings, overview

Telltale and warning lights	Warning symbols in the display	Meaning
	 The ice crystal symbol is displayed.	Outside temperature warning (➠ 34)
 General warning light lights up yellow.	 The key symbol is displayed.	Electronic immobiliser active (➠ 34)
	 The symbol for "radio-operated key not in reception area" is displayed.	Radio-operated key out of range (➠ 34)
	 The battery symbol appears on the display.	Replace the battery of the radio-operated key (➠ 35)
 The "General" warning light shows red.	The temperature reading turns red.	Coolant temperature too high (➠ 35)
 The malfunction indicator lamp lights up.		Emissions warning (➠ 35)

Telltale and warning lights	Warning symbols in the display	Meaning
 General warning light lights up yellow.	 The engine symbol is displayed.	Engine fault (➠ 36)
 General warning light flashes yellow.	 The engine symbol is displayed.	Major engine fault (➠ 36)
	 The oil-can symbol appears on the display.	Engine-oil level too low (➠ 37)
 The "General" warning light flashes red.	 The tyre symbol appears on the display. The critical tyre pressure is shown in red.	Tyre pressure outside permitted tolerance (➠ 38)
 General warning light lights up yellow.	 The tyre symbol and "−−" or "−− −−" are displayed.	Sensor defective or system error (➠ 38)
	 The tyre symbol and "−−" or "−− −−" are displayed.	Transmission fault (➠ 39)

Telltale and warning lights	Warning symbols in the display	Meaning
 General warning light lights up yellow.	 The RDC battery symbol appears on the display.	Battery of tyre-pressure sensor weak (➠ 39)
 The "General" warning light shows red.	 The headlight with a question mark is displayed.	Direction of throw of low-beam headlight unknown (➠ 40)
 General warning light flashes yellow.	 The headlight with a zero is displayed.	Beam-throw adjustment of the low-beam headlight restricted (➠ 40)
	 The headlight with left/right is displayed.	Headlight aiming changed (➠ 40)
 General warning light lights up yellow.	 Bulb symbol with arrow pointing to the rear appears on the display.	Rear light failure (➠ 40)
 General warning light lights up yellow.	 Bulb symbol with arrow pointing to the front appears on the display.	Front light failure (➠ 41)

Telltale and warning lights	Warning symbols in the display	Meaning
 General warning light lights up yellow.	 Bulb symbol with two arrows appears on the display.	Light failure (➠ 41)
	 The split battery symbol appears on the display.	On-board system voltage low (➠ 41)
 General warning light lights up yellow.	 The split battery symbol appears on the display.	On-board system voltage critical (➠ 41)
 The "General" warning light shows red.	 The battery symbol appears on the display.	Insufficient battery charge current (➠ 42)
	 The alarm system battery symbol appears on the display.	Anti-theft alarm battery weak (➠ 42)
 General warning light lights up yellow.	 The alarm system battery symbol appears on the display.	Anti-theft alarm battery flat (➠ 43)

Telltale and warning lights	Warning symbols in the display	Meaning
	 The locked symbol appears on the display.	Central locking locked (➠ 43)
 The ABS indicator and warning light flashes.		ABS self-diagnosis not completed (➠ 43)
 The ABS indicator and warning light shows.		ABS fault (➠ 43)
 The DTC indicator light flashes quickly.		DTC intervention (➠ 43)
 The DTC indicator light flashes slowly.		DTC self-diagnosis not completed (➠ 44)
 The DTC indicator light lights up.		DTC switched off (➠ 44)
 The DTC indicator light lights up.		DTC fault (➠ 44)

Telltale and warning lights	Warning symbols in the display	Meaning
 General warning light lights up yellow.	 The symbol for D-ESA fault is displayed.	D-ESA fault (➠ 44)
 The reserve-fuel symbol lights up.	The fuel-level reading turns yellow.	Fuel down to reserve (➠ 45)
	 The holding symbol is displayed.	Hill Start Control activated (➠ 45)
 General warning light flashes yellow.	 The holding symbol flashes briefly.	Hill Start Control is deactivated automatically (➠ 45)
 General warning light flashes yellow.	 The holding symbol flashes briefly.	Hill Start Control cannot be activated (➠ 46)
 General warning light lights up yellow.	 The symbol for brake temperature is displayed.	The temperature of the brakes is too high (➠ 46)
 General warning light briefly lights up yellow.	 The service symbol is displayed.	Service overdue (➠ 47)

Telltale and warning lights	Warning symbols in the display	Meaning
	 The symbol for emergency call fault is displayed.	Emergency call fault (➠ 48)

Ambient temperature



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



If the ambient temperature drops to below 3 °C, a warning of potential black ice appears. Regardless of the display settings the display automatically switches over to the temperature display when the ambient temperature drops below this threshold for the first time.

Outside temperature warning



The ice crystal symbol is displayed.

Possible cause:

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

WARNING

Risk of black ice also applicable at over 3 °C

Risk of accident

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

Electronic immobiliser active



General warning light lights up yellow.

The key symbol is displayed.

Possible cause:

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

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

Radio-operated key out of range

– with Keyless Ride OE



The symbol for "radio-operated key not in reception area" is displayed.

Possible cause:

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

- Check the battery in the radio-operated key.
- Use the emergency key to continue your journey.

– with Keyless Ride OE

- Battery of the radio-operated key is empty or loss of the radio-operated key (➠ 56).
- Remain calm if the warning symbol appears while you are riding. You can continue your journey, the engine will not switch off.
- Have the defective radio-operated key replaced by an authorised BMW Motorrad dealer.

Replace the battery of the radio-operated key

– with Keyless Ride OE


The battery symbol appears on the display.

Possible cause:

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

Coolant temperature too high


The "General" warning light shows red.

The temperature reading turns red.

ATTENTION

Riding with overheated engine

Engine damage

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

Possible cause:

The coolant temperature is too high.

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

Emissions warning


The malfunction indicator lamp lights up.

Possible cause:

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

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

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

Engine fault


General warning light lights up yellow.


The engine symbol is displayed.

Possible cause:

The engine control unit has diagnosed a fault.

WARNING

Unusual ride characteristics when engine running in emergency-operation mode

Risk of accident

- Adapt your style of riding accordingly: avoid accelerating sharply and overtaking.◀
- Expect an unusual engine response if you continue riding (low levels of power, bad response characteristics, abrupt engine stalling, etc.).
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Major engine fault


General warning light flashes yellow.


The engine symbol is displayed.

Possible cause:

The engine control unit has diagnosed a major fault.

WARNING

Engine damage when running in emergency-operation mode

Risk of accident

- Adapt your style of riding accordingly: ride slowly, avoid sharp accelerating and overtaking.
- If possible, have the vehicle brought in and the fault rectified by a specialist workshop, preferably an authorised BMW Motorrad dealer.◀
- Expect an unusual engine response if you continue riding (low levels of power, bad response characteristics, abrupt engine stalling, etc.).
- Have the fault rectified as quickly as possible by a specialist workshop, preferably

an authorised BMW Motorrad dealer.

Oil level

The oil-level indicator gives you an indication of the engine oil level.

The preconditions for the oil level check are as follows:
– Engine at operating temperature.
– Engine idling for at least ten seconds.
– Side stand retracted.
– Make sure the motorcycle is upright.

The readings mean:

OK: oil level is correct.

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

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

Engine-oil level too low

The oil-can symbol appears on the display.

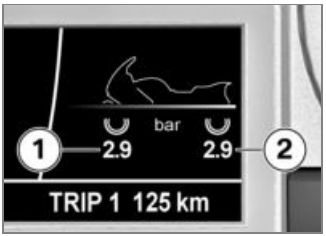
Possible cause:

The electronic oil-level sensor has registered an excessively low oil level. Check the engine oil level using the oil dipstick at the next refuelling stop:
• Checking engine oil level (➠ 128).

If the oil level is too low:
• Top up the engine oil (➠ 129).

Tyre pressures

– with tyre pressure control (RDC)[OE]



The tyre-pressure readings are based on a reference tyre temperature of 20 °C. The front tyre pressure is on the left **1**; the reading on the right **2** is the rear tyre pressure. "–– ––" appears directly after the ignition is switched on because the sensors do not transmit tyre pressure values until the first time the vehicle accelerates to more than 30 km/h.

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


The tyre warning symbol also appears on the display.


The "General" warning light flashes red.

The detailed description of BMW Motorrad RDC starts on page (➠ 121).

Tyre pressure outside permitted tolerance

– with tyre pressure control (RDC)[OE]


The "General" warning light flashes red.


The tyre symbol appears on the display. The critical tyre pressure is shown in red.

Possible cause:

Measured tyre pressure is outside permitted tolerance.

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

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

WARNING

Tyre pressure outside permitted tolerance.

Impairment of the vehicle's handling characteristics.

- Adapt your style of riding accordingly.◀
- Correct the tyre pressure at the earliest possible opportunity.

NOTICE

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

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

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

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

Sensor defective or system error

– with tyre pressure control (RDC)[OE]


General warning light lights up yellow.


The tyre symbol and "– –" or "– – – –" are displayed.

Possible cause:

Vehicle is fitted with wheels not equipped with RDC sensors.

- Fit wheels and tyres equipped with RDC sensors.

Possible cause:

One or two RDC sensors failed.

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

Possible cause:

A system error has occurred.

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

Transmission fault

– with tyre pressure control (RDC)[OE]



The tyre symbol and "– –" or "– – – –" are displayed.

Possible cause:

The driving speed has not accelerated past the threshold of approximately 30 km/h. The RDC sensors do not start transmitting signals until the vehicle reaches a speed above this threshold for the first time (➠ 121).

- Observe the RDC display at higher speeds. A permanent fault is present only when the general warning light also lights up. Under these circumstances:
- Have the fault rectified by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Possible cause:

Wireless communication with the RDC sensors has been disrupted. Possible causes include radio-communication systems operating in the vicinity and interfering with the link between the RDC control unit and the sensors.

- Move to another location and observe the RDC readings. Assume that a permanent fault has not occurred unless the 'General' warning light comes on to accompany the symptoms. Under these circumstances:
- Have the fault rectified by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Battery of tyre-pressure sensor weak

– with tyre pressure control (RDC)[OE]



General warning light lights up yellow.



The RDC battery symbol appears on the display.

NOTICE

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

Possible cause:

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

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

Direction of throw of low-beam headlight unknown


The "General" warning light shows red.


The headlight with a question mark is displayed.

Illumination of the road ahead is no longer optimum; there is a possibility of dazzling oncoming traffic.

Possible cause:

Direction and headlight beam throw of the low-beam headlight are unknown, re-adjustment is no longer possible.

- If it is dark, park the vehicle or have it picked up (if possible).
- Have the defect rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Beam-throw adjustment of the low-beam headlight restricted


General warning light flashes yellow.


The headlight with a zero is displayed.

Illumination of the road ahead is no longer optimum.

Possible cause:

Direction and headlight beam throw of the low-beam headlight provides only restricted adjustment options.

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

Headlight aiming changed

– with adaptive head light OE


The headlight with left/right is displayed.

Corning light control for the low-beam headlight is switched off.

Possible cause:

Headlight alignment has been changed from the as-delivered condition.

- Adjusting right-hand or left-hand traffic (➠ 63).

Rear light failure


General warning light lights up yellow.


Bulb symbol with arrow pointing to the rear appears on the display.

Possible cause:

Rear light, brake light or rear flashing turn indicator defective. The LED rear light must be replaced.

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

Front light failure


General warning light lights up yellow.


Bulb symbol with arrow pointing to the front appears on the display.

Possible cause:

Low-beam headlight, high-beam headlight, parking light or front flashing turn indicator defective. The low-beam headlight or one of the LED turn indicators must be replaced.

- Consult a specialist workshop, preferably an authorised BMW Motorrad dealer.
- Replacing bulb for high-beam headlight (➠ 142).

Light failure


General warning light lights up yellow.


Bulb symbol with two arrows appears on the display.

Possible cause:

A combination of light failures has occurred.

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

On-board system voltage low


The split battery symbol appears on the display.

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

Possible cause:

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

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

On-board system voltage critical


General warning light lights up yellow.


The split battery symbol appears on the display.

Generator power is no longer sufficient to supply all consumers and charge the battery. In order to ensure that the engine can be started and the motorcycle ridden, the on-board electronics switch off the electricity supply

to the on-board sockets and the auxiliary headlights. In extreme cases the seat heating and the grip heating might also be shut down.

Possible cause:

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

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

Insufficient battery charge current


The "General" warning light shows red.


The battery symbol appears on the display.

WARNING

Discharged battery causes various motorcycle systems to fail, such as lighting, engine or ABS

Risk of accident

- Do not continue your journey.◀

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

Possible cause:

Alternator or alternator drive faulty.

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

Anti-theft alarm battery weak

– with alarm system (DWA)[OE]


The alarm system battery symbol appears on the display.

NOTICE

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

Possible cause:

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

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

Anti-theft alarm battery flat

– with alarm system (DWA) OE


General warning light lights up yellow.


The alarm system battery symbol appears on the display.

NOTICE

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

Possible cause:

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

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

Central locking locked

– with central locking system OE


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

ABS self-diagnosis not completed


The ABS indicator and warning light flashes.

Possible cause:

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

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

ABS fault


The ABS indicator and warning light shows.

Possible cause:

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

- You can continue to ride the vehicle, but make due provision for the fact that the ABS function is not available. Bear in mind the more detailed information on situations that can lead to an ABS fault (➠ 115).
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad dealer.

DTC intervention


The DTC indicator light flashes quickly.
The DTC has detected a degree of instability at the rear wheel

and has intervened to reduce torque. The indicator light flashes for longer than the DTC intervention lasts. This affords the rider visual feedback on control intervention even after the critical situation has been dealt with.

DTC self-diagnosis not completed


The DTC indicator light flashes slowly.

Possible cause:

Self-diagnosis did not complete, so the DTC function is not available. The engine must be running and the motorcycle must reach a minimum speed of 5 km/h to complete DTC self-diagnosis..

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

DTC switched off


The DTC indicator light lights up.

Possible cause:

The rider has switched off the DTC system.

- Switch on DTC.

DTC fault


The DTC indicator light lights up.

Possible cause:

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

- You can continue to ride. Bear in mind that the DTC function is not available. Bear in mind the more detailed information on situations that can lead to a DTC fault (➠ 118).
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad dealer.

D-ESA fault


General warning light lights up yellow.


The symbol for D-ESA fault is displayed.

Possible cause:

The D-ESA control unit has detected a fault. In this condition, the motorcycle has too much damping and is uncomfortable to drive, especially on roads in poor condition.

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

Range


The range readout indicates how far you can ride with the fuel remaining in the

tank. The figure for average consumption used to calculate range is not shown and might not be the same as the average-consumption reading that appears on the display.
You must put at least five litres of fuel into the fuel tank for the new level to be registered correctly.
If the sensor cannot register the new level the range readout cannot be updated.
When the motorcycle is propped on its side stand the slight angle of inclination means that the sensor cannot register the fuel level correctly. This is the reason why the range is calculated only when the side stand is in the retracted position.

NOTICE

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

Fuel down to reserve

The reserve-fuel symbol lights up.

The fuel-level reading turns yellow.

WARNING

Irregular engine operation or engine shutdown due to lack of fuel

Risk of accident, damage to catalytic converter

- Do not run the fuel tank dry.◀

Possible cause:

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

Reserve fuel	
approx. 4 l	

- Refuelling (➠ 107).

Hill Start Control activated

– with Hill Start Control OE

The holding symbol is displayed.

Possible cause:

The driver has activated Hill Start Control (➠ 123).

- Switch off Hill Start Control.
- Operate Hill Start Control (➠ 82).

Hill Start Control is deactivated automatically

– with Hill Start Control OE

General warning light flashes yellow.

The holding symbol flashes briefly.

Possible cause:

Hill Start Control has been switched off automatically.

- The side stands have been folded out.
» Hill Start Control is deactivated when the side stands are folded out.
- The engine has been stopped.
» Hill Start Control is deactivated when the engine is stopped.
- The motorcycle has been drive off with Hill Start Control activated.
- Operate Hill Start Control (➠ 82).

Hill Start Control cannot be activated

– with Hill Start Control OE



General warning light flashes yellow.



The holding symbol flashes briefly.

Possible cause:

Hill Start Control cannot be activated.

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

The temperature of the brakes is too high



General warning light lights up yellow.



The symbol for brake temperature is displayed.

DANGER

Riding with overheated brakes

Risk of accident due to brake system failure

- Continue riding moderately (air stream speeds up the cooling of the brakes).
- Avoid frequent braking by downshifting at an early stage (e.g. when driving downhill).◀

WARNING

Disregard of the maintenance intervals (reliance on warning light)

Risk of accident, because the warning light only displays an excessive temperature of the regularly maintained brake system.

- It is imperative that the valid maintenance intervals for the brakes be complied with since no warning light can replace the regular maintenance of the brake system.◀

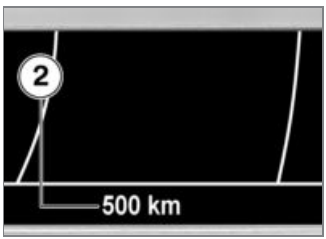
Service-due indicator

If a service is due, for a brief period after the Pre-Ride-Check the service symbol appears on the display and the service-due date shows instead of the odometer reading.

If the service is overdue the 'General' warning light briefly shows yellow and the service symbol lights up and remains ON.



If the countdown to the next service is less than one month, service-due date **1** appears on the display.



If the vehicle covers long distances in the course of the year, under certain circumstances it might be necessary to have it serviced at a date in advance of the forecast due date. If the countdown distance to the early service is less than 1000 km, countdown distance **2** appears on the display.

NOTICE

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

Service overdue

The service symbol is displayed.

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

Possible cause:

A necessary service has not been carried out.

- Have servicing carried out as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Emergency call fault

– with intelligent emergency call OE

SOS! The symbol for emergency call fault is displayed.

Possible cause:

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

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

Emergency call display

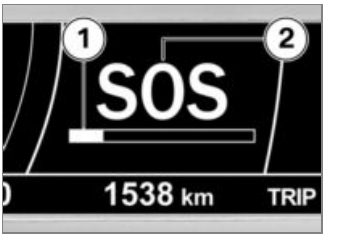
– with intelligent emergency call OE



The emergency call symbol **1** is displayed if an emergency call is made during the journey.



This symbol **1** is displayed once a connection has been established.



A progress bar **1** below the emergency call symbol **2** is displayed during connection setup.



This symbol **1** is displayed if it was not possible to establish a connection.



If there is no mobile phone signal, this symbol **1** is displayed.



If emergency calls are not possible as a result of a technical fault, this symbol **1** is displayed.

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Ignition switch/steering lock

Keys

You receive 2 ignition keys. Please consult the information on the electronic immobiliser (EWS) if a key is lost or mislaid (➠ 53). Ignition switch/steering lock, tank filler cap lock, stowage compartment, seat lock, cases and topcase are all operated with the same vehicle key.

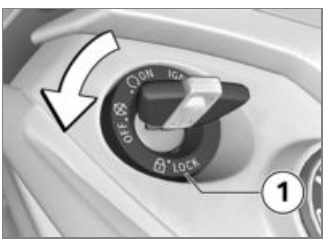
Lock the handlebars

ATTENTION

Handlebars turned in wrong direction when motorcycle propped on side stand

Risk of damage to parts if vehicle topples

- On level ground, always turn the handlebars to the left to set the steering lock.
- In all other cases it is the lie of the ground that determines the direction in which the handlebars should be turned.◀
- Turn the handlebars all the way to left.

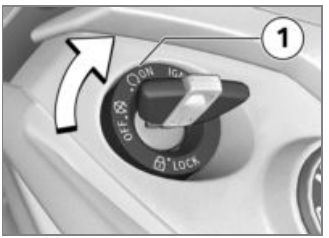


- Turn the ignition key to this position **1** and move the handlebars slightly in the process.

» Ignition, lights and all function circuits switched off.
» Steering lock secured.
» You can pull off the ignition key.

Ignition

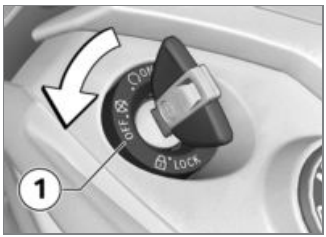
Switch on ignition



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

» Parking lights and all function circuits switched on.
» Engine can be started.
» Pre-Ride-Check is performed. (➠ 101)
» Running ABS self-diagnosis. (➠ 101)
» DTC self-diagnosis is in progress. (➠ 102)

Switch off ignition



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

» Lights switched off.
» Handlebars not locked.
» Ignition key can be removed.
» The windscreen automatically moves to the bottom limit position.

Electronic immobiliser EWS

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

NOTICE

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

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

Ignition with Keyless Ride

Keys

– with Keyless Ride OE

You receive one radio-operated key and one emergency key. Please consult the information on the electronic immobiliser (EWS) if a key is lost or mislaid (➠ 53). Ignition, fuel filler cap, central locking system and anti-theft alarm system all work with the radio-operated key. Seat lock, stowage compartments, topcase

and cases can be locked and unlocked manually.

NOTICE

The vehicle cannot be started or the central locking system locked or unlocked if the radio-operated key is not within range (e.g. key inside one of the cases or the topcase).

If the key is taken out of range the ignition is switched off after approximately 1.5 minutes, but the central locking system is **not** locked.

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

Range of the Keyless Ride radio-operated key
approx. 1 m

Lock the handlebars

– with Keyless Ride OE

Requirement

Handlebars have been moved towards the left or right.

Requirement

Radio-operated key is within range.



ATTENTION

Incorrect handlebar angle upon parking on the side stand

Component damage caused by the vehicle falling over

- On level ground, always turn the handlebars to the left to set the steering lock.◀
- Press and hold down button **1**.

» The steering lock engages with an audible click.

» Ignition, lights and all function circuits switched off.

- Short-press button **1** to disengage the steering lock.

Switching on ignition

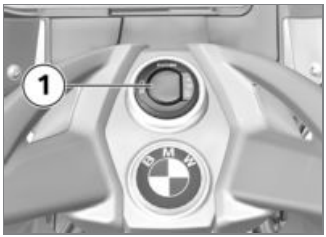
– with Keyless Ride OE

Requirement

Radio-operated key is within range.

- There are two ways of activating the ignition:

Version 1



- Short-press button **1**.

» Parking lights and all function circuits switched on.
» Engine can be started.
» Pre-Ride-Check is performed. (➠ 101)
» Running ABS self-diagnosis. (➠ 101)
» DTC self-diagnosis is in progress. (➠ 102)

Version 2

- Steering lock is engaged; press and hold down button **1**.

» The steering lock disengages.
» Parking lights and all function circuits switched on.
» Engine can be started.
» Pre-Ride-Check is performed. (➠ 101)
» Running ABS self-diagnosis. (➠ 101)
» DTC self-diagnosis is in progress. (➠ 102)

Switching off ignition

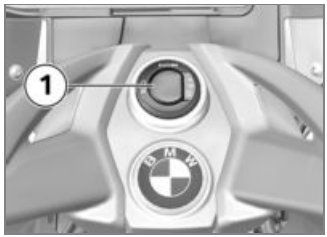
– with Keyless Ride[OE]

Requirement

Radio-operated key is within range.

- There are two ways of deactivating the ignition:

Version 1



- Short-press button **1**.

» Light is switched off.
» Handlebars (steering lock) are not locked.
» The windscreen automatically moves to the bottom end position.

Version 2

- Turn the handlebars all the way to left.
- Press and hold down button **1**.

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

» The windscreen automatically moves to the bottom end position.

Electronic immobiliser EWS

– with Keyless Ride OE

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

NOTICE

A spare key attached to the same ring as the ignition key used to start the engine could "irritate" the electronics, in which case the enabling signal for starting is not issued. The EWS warning appears in the multifunction display.

Always keep the spare key separately from the ignition key.◀

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

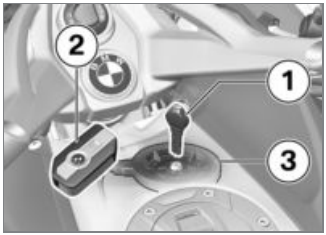
Battery of the radio-operated key is empty or loss of the radio-operated key

– with Keyless Ride OE

NOTICE

The aerial is in front of the fuel filler cap, underneath the fuel tank cover.◀

- Consult the information on the electronic immobiliser (EWS) if a key is lost or mislaid.
- If you happen to lose or mislay the radio-operated key while on a journey, you can start the vehicle with the emergency key.
- If the battery of the radio-operated key is empty, touching the radio-operated key against the tank cover will start the engine.



- Hold emergency key **1** or radio-operated key with empty battery **2** at the tank cover above aerial **3**.

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

» Pre-Ride-Check is performed.
– Key has been recognised.
– Engine can be started.
- Start engine (➠ 100).

Replace the battery of the radio-operated key

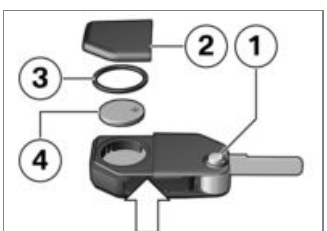
– with Keyless Ride[OE]

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

- The battery in the radio-operated key is not at full capacity.

» Change the battery.

The battery symbol appears on the display.



- Press button **1**.

» Key bit flips out.

- Lever out the battery lid **2** on the recess for the key bit.
- Remove the battery lid **2** and seal **3**.
- Remove battery **4**.
- 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 the seal **3** and battery lid **2**.

» Red LED on the instrument panel flashes.

» The remote control is again ready for use.

Emergency off switch (kill switch)



1 Emergency off switch (kill switch)

WARNING

Operation of the kill switch while riding

Risk of fall due to rear wheel locking

- Do not operate the kill switch when riding.◀

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



a Engine switched off

b Normal operating position (run)

Intelligent emergency call

– with intelligent emergency call[OE]

Emergency call via BMW

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

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

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

Language for emergency call

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

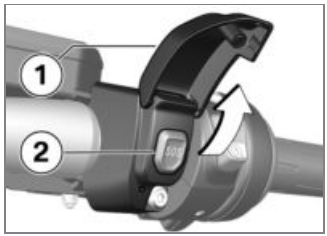
NOTICE

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

Manual emergency call

Requirement

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



- Open the cover **1**.
- Operate the SOS button **2**.



The time until transmission of an emergency call is displayed. During this time, the emergency

call can be cancelled by pressing and holding the SOS button.

- Operate the emergency-off switch to stop the engine.
- Remove helmet.

» After expiry of the timer, a voice contact to the BMW Call Center is established.



The connection was established.



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

Automatic emergency call

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

Emergency call in the event of a light fall

- A light fall or a crash was detected.

» An acoustic signal is sounded.



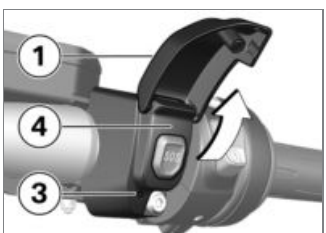
The time until transmission of an emergency call is displayed. During this time, the emergency call can be cancelled by pressing and holding the SOS button.

- If possible, remove helmet and stop engine.

» After expiry of the timer, a voice contact to the BMW Call Center is established.



The connection was established.



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

Emergency call in the event of a severe fall

- A severe fall or a crash is detected.

» The emergency call is placed automatically without delay.

Reverser

– with reverser[OE]

Requirements

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

– Motorcycle at standstill.
– Engine running.
– 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 7 %

Activating the reverser



- Press button **1**.

» Gear indicator switches from "N" to "R".

» You can use the reverser as soon as the "R" display no longer flashes.

Using the reverser



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

NOTICE

The vehicle is not automatically braked and may therefore continue to roll after having released the starter button.◀

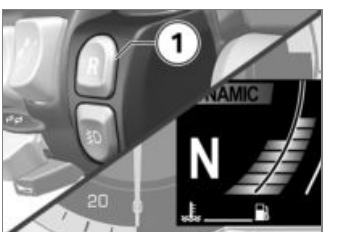
Automatic termination

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 brake is operated

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

Deactivating the reverser



- Press button **1**.

» Gear indicator switches from "R" to "N".

Lights

Side light

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

NOTICE

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

Low-beam headlight

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

High-beam headlight and headlight flasher



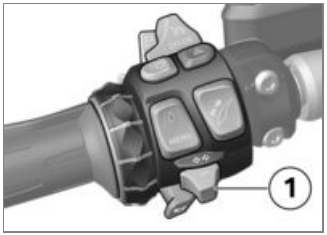
- Push switch **1** forward to switch on the high-beam headlight.
- Pull switch **1** back to operate the headlight flasher.

NOTICE

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

Parking lights

- Switch off the ignition.



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

Adjusting right-hand or left-hand traffic

– with adaptive head light OE

- Switch on the ignition.
- Open the `Settings` menu and then select the `Vehicle` menu item.
- Select the `Headlight` menu item.



– `R-hand traffic`: for countries with right-hand side traffic.
– `L-hand traffic`: for countries with left-hand side traffic.

Beam throw

The xenon headlight has continuous beam throw control that keeps beam throw constant regardless of how the motorcycle is ridden and the load it carries.

Operating additional headlights

– with auxiliary headlights OE

NOTICE

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



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

The telltale light shows.

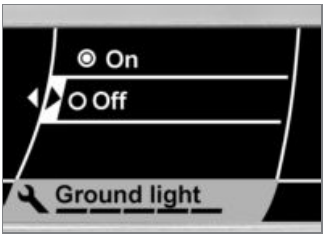
The vehicle voltage is low if this warning symbol is displayed. If applicable, the auxiliary headlights might have been temporarily switched off.

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

Operating the ground light

– with central locking system OE
– with ground lighting OA

- Switch on the ignition.
- Open the `Settings` menu and then select the `Vehicle` menu item.
- Select the `Ground light` menu item.



– `On`: ground light is briefly switched on after having switched off the ignition.
– `Off`: ground light is not switched on after having switched off the ignition.

» If the ground light was switched off as described above, unlocking the central locking system will continue to switch on the feature.

Daytime riding light

– with daytime riding light OE

Manual daytime riding light

Requirement

Automatic daytime riding light is switched off.

WARNING

Activation of daytime riding light in the dark.

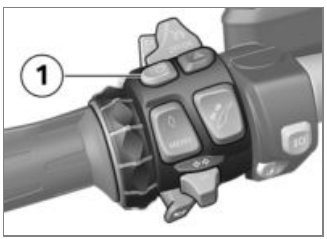
Poorer vision and oncoming traffic dazzled.

- Do not use the daytime running light when it is dark.◀

NOTICE

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

- Start engine (➠ 100).
- Open the Settings menu and then select Vehicle.
- Select the DRL menu item and switch Automatic DRL to Off.



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

The indicator light for the daytime riding light illuminates.

» The low-beam headlight, the front side lights and the auxiliary headlight are switched off.

- In the dark or in tunnels: Press button **1** again to switch off the daytime riding light and switch on the low-beam headlight. The auxiliary headlight is also switched on again.

NOTICE

If the high beam headlight is switched on whilst the daytime running light is switched on, the daytime running light will be switched off after approx. 2 seconds, and the high beam headlight, low beam headlight, front side lights and, if applicable, the auxiliary headlights will be switched on.

If the high beam headlight is switched off again, the daytime running light is not automatically reactivated, but must be switched on again if required.◀

Automatic daytime riding light

WARNING

The automatic riding light control system cannot replace your personal assessment of lighting conditions, particularly in foggy or misty weather.

Safety risk

- Manually switch on the low-beam headlight in poor lighting conditions.◀

NOTICE

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

NOTICE

For reasons of available space, the beams of the light symbol are deactivated to display the volume bar.◀

- Open the Settings menu and then select Vehicle.
- Select the DRL menu item and switch Automatic DRL to On.

The symbol for the automatic daytime riding light shows in the display.

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

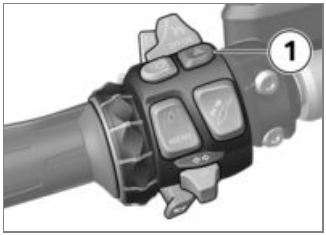
Hazard warning lights system

Operating hazard warning flashers

- Switch on the ignition.

NOTICE

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



- Press button **1** to switch on the hazard warning flashers.

» Ignition can be switched off.

Switching off the hazard warning lights system:

- Switch on the ignition and operate the **1** button.

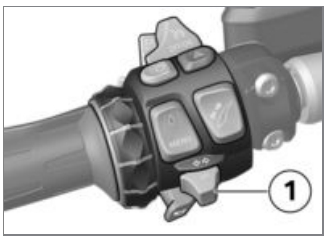
Turn indicators

Operating the turn indicators

- Switch on the ignition.

NOTICE

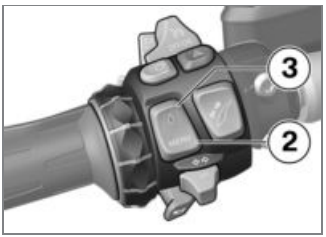
The turn indicators are cancelled automatically after the defined time and distance. The defined time and distance travelled can be set by an authorised BMW Motorrad dealer.◀



- 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.
- Operate centre button **1** to cancel the turn indicators.

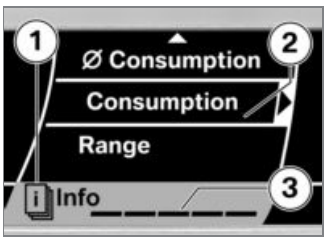
Multifunction display

Selecting menu



Press the **2** button to open the available menus, starting with the `Information` menu. Each additional operation of the **2** button opens the following menu, the number of menus depends on the vehicle equipment.
Press the **3** button to directly access a menu available for selection.

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



Position **1** shows the type of menu, the cursor **2** shows the current selection. Each of the bars **3** represents a menu available for selection. The bar of the current menu is not shown to illustrate its position within the sequence of all menus.

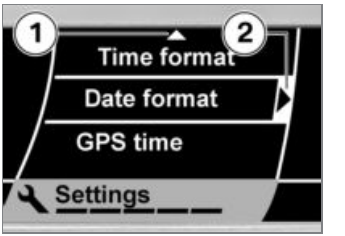
NOTICE

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

Selecting menu items



Move the cursor within the menu using the Multi-Controller **1**.

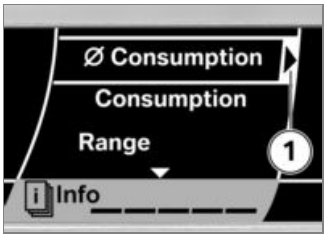


An arrow **1** on the top or bottom edge of the display indicates that twisting the Multi-Controller in the corresponding direction opens additional menu items. If the arrow **2** is displayed in the cursor, press the Multi-Controller towards the right to open a submenu. See (➠ 69) for deviating meanings of average values and the list selection.

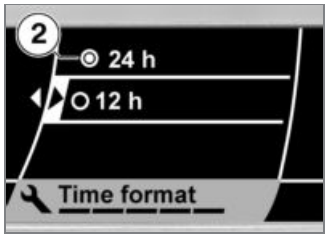
Configuring settings



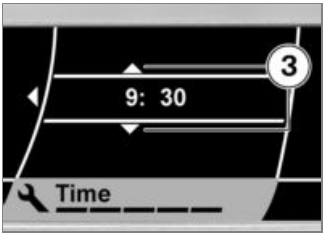
Direct selection:
Move the cursor to a menu item that does not require any further settings to immediately activate it.



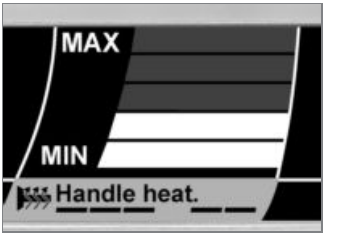
Resetting values:
If average values have been highlighted with an arrow **1**, press and hold the Multi-Controller towards the right to reset them.



Selecting from a list:
Items for selection highlighted by a circle **2** represent selection lists. The current selection has been highlighted with a dot in the circle.
Select a list item with the cursor and press the Multi-Controller towards the right to activate or deactivate it and modify the selection.

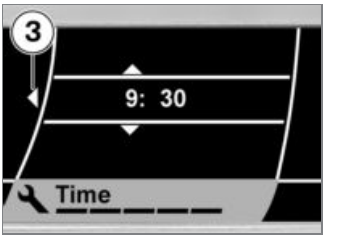


Adjusting numerical values: If one or more numerical values are located between the arrows **3**, turn the Multi-Controller towards the top to increase them and turn towards the bottom to reduce them. Press the Multi-Controller towards the right or left to change between values.

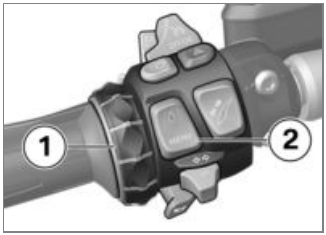


Adjusting relative values: Adjust settings between two limit values using a bar display. Turn the Multi-Controller towards the top to increase values and turn it towards the bottom to reduce the value you would like to adjust.

Exiting a menu



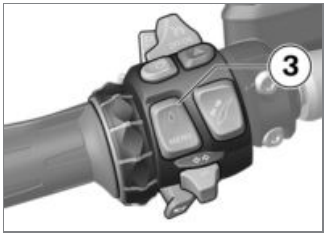
The arrow **3** is displayed below the submenu.



Press the Multi-Controller **1** towards the left to browse back to the corresponding superordinate menu, press the MENU button **2** to go back to the main menu.
Press the Multi-Controller **1** towards the left in one of the main menus to hide the menus.

Selecting the favourites menu

- Select the desired main menu.



- Press and hold the button **3**.

The diamond is shown to the right of the menu designation.

» Each subsequent operation of the button **3** opens the selected menu.

Adapting the screen mask

- Switch on the ignition.
- Open the Settings menu and select the User menu item.

You can configure the following settings:

– Language: display language (German, English, Spanish, Italian, French, Dutch, Portuguese)
– Time format - Clock format: clock in 12-hour format (12 h) or in 24-hour format (24 h)
– Time format - Date format: date in Day.Month.Year format (dd.mm.yy) or Month/Day/Year format (mm/dd/yy)
– Time format - GPS time: transfer GPS time and GPS date from the installed navigation system (On), (Off)
– Brightness: display and needle brightness
– Start logo: displays the start logo after switching on the ignition (On), (Off)
– Background: display when the radio is switched off: Empty: no display, Logo: 6-cylinder engine logo,

Speed ind.: digital speed indicator
– Default status: restore factory conditions (if Reset ! is displayed, press and hold the Multi-Controller towards the right)
• Configure the desired settings using the Multi-Controller.

On-board computer

Select display

• Open the Info menu and then select the desired information.



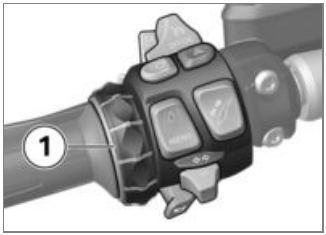
The following information may be displayed in this area **3**:
– Ø consumption: average consumption
– Consumption: current consumption
– Range: range with remaining fuel
– Ø speed: average speed
– Temperature: ambient temperature
– Tyre pressure: tyre pressures
– Stopwatch: stopwatch
– Trav. times: travelling times
– Date: current date
– Veh. voltage: vehicle voltage
– Oil level: engine oil level
– Off: no display

Resetting the average values

• Open the Information menu and then select the average value you would like to reset.
• Press and hold the Multi-Controller towards the right until the average value is reset.

Operate stopwatch

• Open the Info menu and then select the Stopwatch menu item.



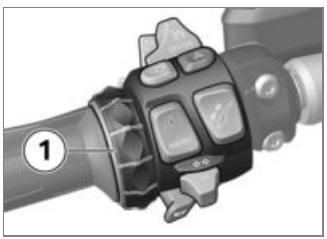
- If the stopwatch has been stopped press the Multi-Controller **1** towards the right to start the stopwatch.

» The stopwatch continues if you select other displays or the ignition is switched off.

- If the stopwatch is running, press the Multi-Controller **1** towards the right to stop the stopwatch.
- Press and hold the Multi-Controller **1** towards the right to reset the stopwatch.

Tracking travelling times

- Open the `Info` menu and then select the `Trav. times` menu item.



- Press and hold the Multi-Controller **1** towards the right to reset the travelling time.

» The time is also tracked if you select other displays or the ignition is switched off.

Total time during which the vehicle was on the move since the last reset.

Time during which the vehicle was at a standstill since the last reset.

Trip distance recorder

Selecting the trip distance recorder

- Switch on the ignition.



- Call up the `Trip` menu using the **1** button and then select the desired trip distance recorder **2**.

The following counters can be adapted:

– Trip distance recorder 1 (Trip 1)
– Trip distance recorder 2 (Trip 2)
– Automatic trip distance recorder (Trip Auto) automatically resets eight hours after having switched off the ignition.

Resetting trip distance recorder

- Switch on the ignition.
- Select the desired trip distance recorder.



- Press and hold the Multi-Controller **1** towards the right until the trip distance recorder **2** has been reset.

Anti-theft alarm (DWA)

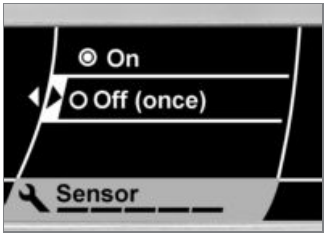
– with alarm system (DWA) OE

Activation without remote control or radio-operated key

- If applicable, switch on the function to automatically activate the alarm system after ignition OFF.
- Customising anti-theft alarm settings (➠ 77).
- Switch off the ignition.

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

- Before switching off the ignition open the Settings menu to deactivate the motion sensor (e.g. to transport the motorcycle by train when the severe movements may activate the alarm).
- Select the Vehicle - Sensor menu item.



- Select `Off (once)` to switch off the motion sensor once.
- Switch off the ignition.

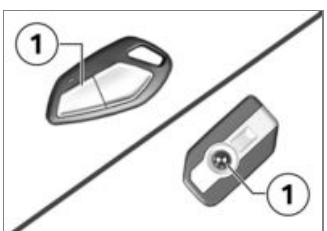
» Activation takes 30 seconds to complete.
» Turn indicators flash three times.
» Confirmation tone sounds three times (if programmed).
» Alarm system activated, motion sensor deactivated.

Activation with remote control or radio-operated key

NOTICE

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

- Switch off the ignition.

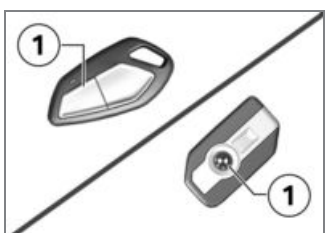


- Press button **1** on the remote control or the radio-operated key twice.

NOTICE

See also the other functions of the remote control for the central locking system.◀

» Activation takes 30 seconds to complete.
» Turn indicators flash twice.
» Confirmation tone sounds twice (if programmed).
» 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

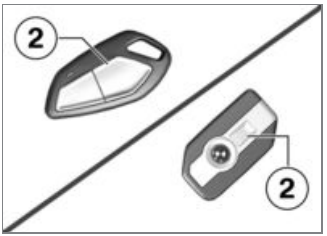
swaying movement of the moving train could trip the alarm), press button **1** on the remote control or the radio-operated key again during the activation phase.
» Turn indicators flash three times.
» Confirmation tone sounds three times (if programmed).
» Motion sensor is deactivated.

Alarm signal

A DWA alarm can be triggered by:
– motion sensor
– an attempt to use an unauthorised vehicle key to switch on the ignition
– disconnection of the DWA anti-theft alarm from the motorcycle's battery (DWA internal battery in the anti-theft alarm provides power - alarm tone only, the turn indicators do not flash).

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

An alarm lasts for approximately 26 seconds. While an alarm is in progress an alarm tone sounds and the turn indicators flash. You can adjust the alarm tone type in the multifunction display.



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

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

Light signals issued by the DWA LED:

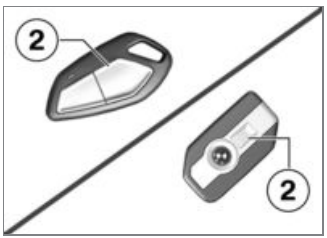
- Flashes 1x: Motion sensor 1
- Flashes 2x: Motion sensor 2
- Flashes 3x: Ignition switched on with unauthorised vehicle key
- Flashes 4x: Disconnection of the anti-theft alarm from the motorcycle's battery
- Flashes 5x: Motion sensor 3

Deactivation without remote control or radio-operated key

- Kill switch in operating position (run).
- Switch on the ignition.

» Turn indicators flash once.
» Confirmation tone sounds once (if programmed).
» Anti-theft alarm is deactivated.

Deactivation with remote control or radio-operated key



- Press button **2** on the remote control or the radio-operated key once.

NOTICE

See also the other functions of the remote control for the central locking system.◀

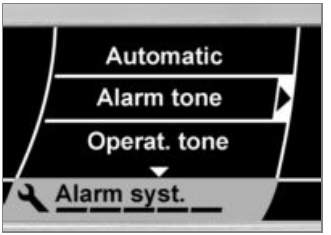
NOTICE

If the alarm function is deactivated by the remote control and the ignition is not subsequently switched on, the alarm function automatically goes active again after 30 seconds if "Activation after ignition OFF" is programmed.◀

» Turn indicators flash once.
» Confirmation tone sounds once (if programmed).
» Anti-theft alarm is deactivated.

Customising anti-theft alarm settings

- Open the `Settings` menu and select the `Vehicle - Alarm system` menu item.



The following settings are available:

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

• Adjust the settings as desired using the Multi-Controller.

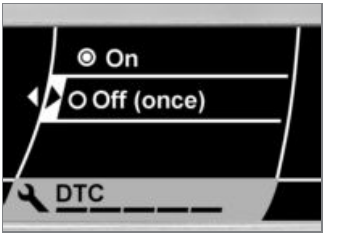
Dynamic Traction Control (DTC)

Switching the DTC function off/on

• Switch on the ignition.
• Open the Settings menu and then select the DTC menu item.

NOTICE

This menu cannot be called up while the motorcycle is on the move.◀



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

The DTC indicator light lights up if Dynamic Traction Control has been switched off.

• Select On to switch on DTC. Alternatively: switch the ignition off and on again.

The DTC indicator light goes out. If self-diagnosis was not completed, the DTC indicator light starts flashing.

Electronic Suspension Adjustment (D-ESA)

Adjusting the chassis and suspension

- Start the engine.



In the multifunction display, the damping is shown in area **1**, the spring preload in area **2**.

- Call up the Dynamic ESA menu.

NOTICE

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

The damping action range of adjustment is displayed.

– ROAD: Normal damping characteristic
– DYNAMIC: Sporty damping characteristic

- Select the desired damping action or move the cursor towards the top to adjust the load.

NOTICE

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

The spring preload range of adjustment is displayed.

One-up

One-up with luggage

Two-up (with luggage)

- Select the desired loading variant.

» The chassis and suspension is adjusted as per the selection and the Dynamic ESA display is adapted to the new setting. Symbols for load and damping action are shown in grey during the adjustment procedure.

Riding mode

Setting riding mode

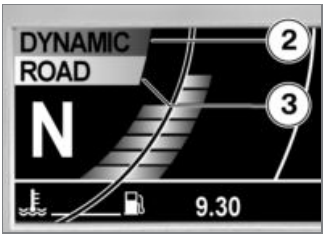
- Switch on the ignition.



• Press button **1**.

NOTICE

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



The current setting is shown at position **2**; each time the button is pressed one of the possible riding modes is shown at position **3**.

• Press the button until the desired riding mode is displayed.
» With the motorcycle at a standstill, the mode you select is activated after a short time.
» The newly selected riding mode is activated as you ride only when the following preconditions are satisfied:
– Brake not operated
– Throttle grip in fully closed position
» Once the new riding mode has been activated, the selection display is no longer shown.
» The adjusted riding mode with the corresponding adaptations of the engine characteristics and DTC also remains activated after having switched off the ignition.

Cruise-control system

Switching on cruise control



• Slide switch **1** to the right.

» Button **2** is operational.

Saving road speed



• Briefly push button **2** forward.

NOTICE

The cruise control can be set within a speed range from 30 km/h to 220 km/h.◀

SET Telltale light for cruise control shows.

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

Accelerating



• Briefly push button **2** forward.
» The speed is increased by 1 km/h each time the button is pressed.

• Push button **2** forward and hold it in this position.
» The motorcycle accelerates steplessly.
» The current speed is maintained and saved if button **2** is not pushed again.

Decelerating



• Briefly push button **2** back.
» The speed is reduced by 1 km/h each time the button is pressed.

• Push button **2** back and hold it in this position.
» The motorcycle decelerates steplessly.
» The current speed is maintained and saved if button **2** is not pushed again.

Deactivate cruise control

• Brake, pull the clutch lever or turn the throttle twistgrip

(close the throttle by turning the twistgrip back past the idle position) to deactivate the cruise-control system.

» Telltale light for cruise-control goes out.

Resuming former cruising speed



- Briefly push button **2** back to return to the speed saved beforehand.

NOTICE

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

SET Telltale light for cruise control shows.

Switching off cruise control



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

» The system is deactivated.

» Button **2** is disabled.

Hill Start Control

– with Hill Start Control[OE]

Operate Hill Start Control

ATTENTION

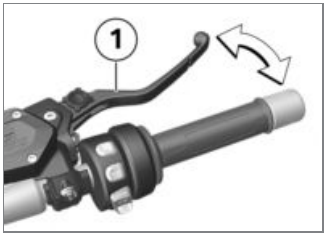
Switching off the engine or ignition, extending the side stand, timeout (approx. 20 minutes) or in the event of a fault

Hill Start Control brake failure

- It is essential to apply the brakes manually to hold the vehicle.◀

NOTICE

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



- Operate the parking brake lever **1** with force and once again release it.

Telltale light for Hill Start Control appears on the display.

» Hill Start Control has been activated.
- To switch off Hill Start Control once again operate the parking brake lever **1**.
- Or drive off in first or second gear.

NOTICE

Hill Start Control is deactivated automatically when the motorcycle pulls away.◀

General warning light flashes yellow.

The holding symbol flashes briefly.

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

» Hill Start Control has been switched off.
- See the section "Engineering details" for more information on Hill Start Control.

» Hill Start Control function (➠ 123)

Central locking

Locking

– with central locking system OE



- Switch on the ignition and operate the **1** button.

NOTICE

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

- Alternatively: operate the **2** button of the remote control or radio-operated key.

» The storage compartments in the side trim panels and the cases are locked.
» Topcase locks.
» These locks can no longer be unlocked manually.


The locked symbol appears on the display.

– with alarm system (DWA) OE
» The remote control functions for the alarm system have been described in the corresponding sections.◁

Unlocking

– with central locking system OE



- Switch on the ignition and operate the **1** button.
- Alternatively: operate the **2** button of the remote control or radio-operated key.

» The storage compartments in the side trim panels and the cases are unlocked.
» Topcase unlocks.
» Locks that have been locked manually must also be manually unlocked again.
– with alarm system (DWA) OE
» The remote control functions for the alarm system have been described in the corresponding sections.◁
– with ground lighting OA
» If the component is unlocked when the ignition is switched off using the remote control, the ground light is briefly switched on.◁

Emergency release

– with central locking system OE

Proceed as follows to manually open cases, topcases and storage compartments if it is no longer possible to unlock the central locking system:

- Removing cases (➠ 158).
- Open cases (➠ 157).
- Opening topcase (➠ 159).



- Turn the key in the storage compartment lock into the intermediate setting between LOCK and the dot position.
- Press in the lock barrel.

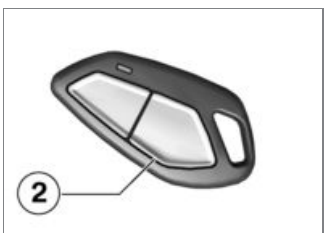
» Storage compartment flap opens.

Logging on the remote control

– with central locking system[OE]
– with alarm system (DWA)[OE]
– without Keyless Ride[OE]

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

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



- Press the **2** button of the remote control three times.

» One sound signal.

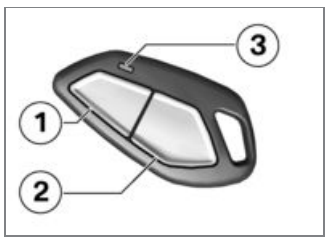
- Switch off the ignition within ten seconds.
- Press the **2** button of the remote control three times.

» One sound signal.

- Switch on the ignition within ten seconds.

You can now log on the remote controls.

- Complete the following steps for each remote control:



- Operate and hold the **1** and **2** buttons until the LED **3** no longer flashes.

» LED **3** flashes for approximately ten seconds.

- Release the **1** and **2** buttons.

» LED **3** lights up.

- Press button **1** or button **2**.

» One sound signal, LED **3** switches off.

Proceed as follows to complete logon:

- Switch off the ignition.

» Three sound signals.

» Logon is also cancelled in the following cases

– Four remote controls have been logged on.

– If no buttons are pressed within 30 seconds after having logged on the first remote control.

Synchronise the remote controls

– with central locking system OE

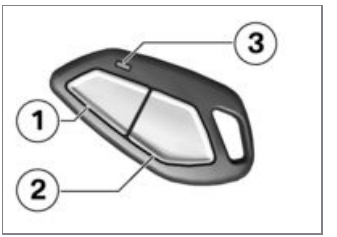
– with alarm system (DWA) OE

– without Keyless Ride OE

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

- The procedure for synchronising the remote controls is as follows:

- Switch on the ignition.



- Press and hold down buttons **1** and **2** until LED **3** stops flashing.

» LED **3** flashes for about ten seconds.

- Release buttons **1** and **2**.

» LED **3** lights up.

- Press button **1** or button **2**.

» LED **3** goes out.

Replacing battery of remote control

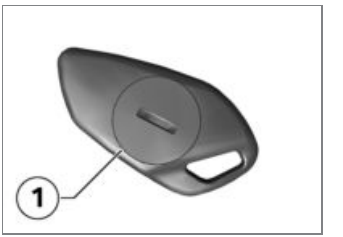
– with central locking system OE

– with alarm system (DWA) OE

– without Keyless Ride OE

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

- Replace the battery of remote control.



- Open lid of battery compartment **1**.

- Dispose of the old battery in accordance with all applicable laws and regulations; do not

attempt to dispose of batteries as domestic waste.

ATTENTION

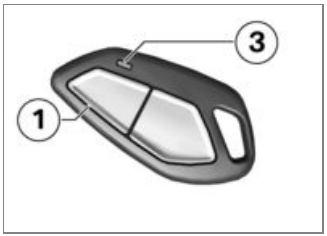
Unsuitable or incorrectly inserted batteries

Component damage

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

Battery type and battery rated voltage
For remote control
CR 1632 Lithium 3 V

» The LED on the remote control lights up; the remote control has to be synchronised.



- Press button **1** twice.

» LED **3** flashes for a few seconds.

» The remote control is again ready for use.

Grip heating

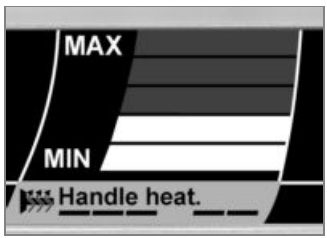
Operating the grip heating

- Start the engine.

NOTICE

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

- Open the `Handle heat` menu.



There are five stages of grip heating. Stage five is intended to quickly heat up the grips, subsequently switch to one of the lower stages.

- Select the desired heating stage.



If the grip heating is switched on, the **1** symbol is displayed.

The vehicle voltage is low if this warning symbol is displayed. If applicable, the handlebar grip heating might have been temporarily switched off.

Seat heating

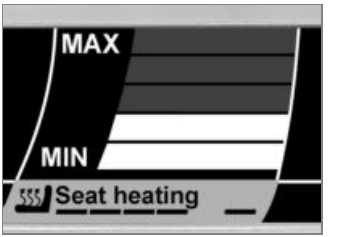
Rider's seat heating

- Start the engine.

NOTICE

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

- Open the `Seat heating` menu.



The front seat has five-stage heating. Stage five is for heating the seat quickly: it is advisable to switch back to a lower stage as soon as the seat is warm.

- Select the desired heating stage.



Symbol **1** appears on the display, indicating that the seat heating is ON.

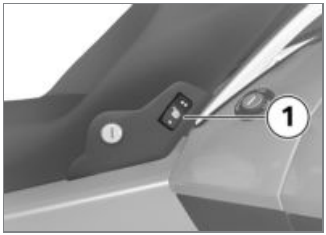
The vehicle voltage is low if this warning symbol is displayed. If applicable, the seat heating might have been temporarily switched off.

Passenger seat heating

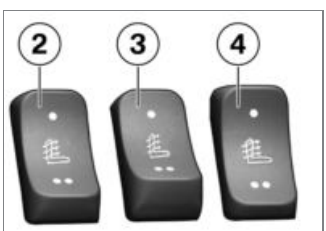
- Start the engine.

NOTICE

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



- Set switch **1** to the desired heating stage.



The passenger seat can be heated in two stages. Stage two is intended to quickly heat up the seat, subsequently switch to the first stage.

- **2** Switch centred: Heating off.
- **3** One-dot section of switch pressed: 50 % heating power.
- **4** Two-dot section of switch pressed: 100 % heating power.

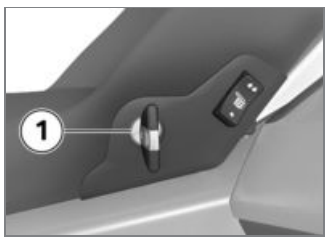


Symbol **1** appears on the display, indicating that the rear seat heating is ON.

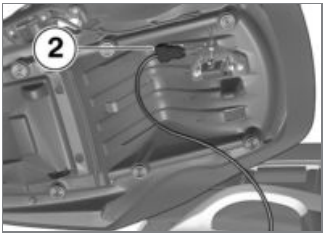
The vehicle voltage is low if this warning symbol is displayed. If applicable, the seat heating might have been temporarily switched off.

Seat

Removing seat

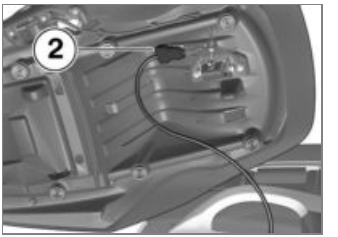


- Use the ignition key to unlock seat lock **1** and lift the rear of the seat.

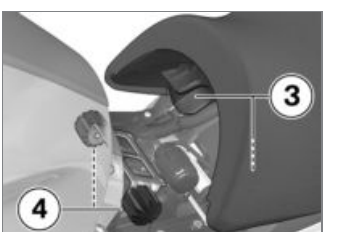


- Disconnect plug **2** of the seat heating and remove the seat.
- Place the seat, upholstered side down, on a clean surface.

Installing the seat



- Connect the plug connection **2** of the seat heating.



- Position the seat with mounts **3** in rubber buffers **4** on left and right.
- Lower the rear of the seat and engage the seat in the latching mechanism.

Storage compartment

Operating the storage compartment

– with central locking system[OE]

- If necessary, unlock the central locking system.◁



- Turn the integrated key in the storage compartment lock to the position with the dot.
- Press the unlocked lock barrel to open the flap.

- The description also applies to the storage compartment on the right-hand side.

ATTENTION

High temperatures develop in the storage compartments, especially in summer

Damage to stored objects, in particular electronic devices, such as mobile phones and MP3 players

- Obtain information about potential usage restrictions in the operating instructions of the electronic device.◀
- In summer, do not place heat-sensitive objects in the storage compartments.

Adjustment

Mirrors 94
Windscreen 94
Slipstream deflector 95
Clutch 95
Brakes 96

Mirrors

Adjusting mirrors



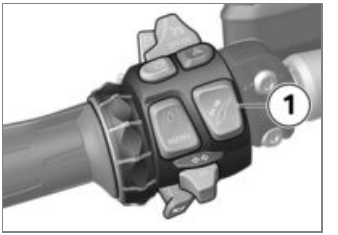
- Pivot the mirror to the correct position by pressing gently at the edge.

Windscreen

Adjusting windscreen

- Switch on the ignition.

» Upon riding off, the windscreen automatically moves to its last position prior to switching off the ignition.



- Operate the button **1** at the top to raise the windscreen.

NOTICE

The button symbol may differ from the figure.◀

- Operate the button **1** at the bottom to lower the windscreen.
- Switch off the ignition.

» The windscreen automatically moves to the bottom end position.

» The anti-trap mechanism activates if the windscreen encounters a resistance prior to reaching the end position. The windscreen stops and the mechanism raises it slightly. After a few seconds the windscreen once again attempts to adjust the bottom end position.

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

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

Slipstream deflector

Adjusting the slipstream deflector



WARNING

Adjusting slipstream deflectors while riding.
Risk of falling
- Do not attempt to adjust the slipstream deflectors unless the motorcycle is at a standstill.◀
- Turn the slipstream deflector **1** towards the inside or outside to adjust the air flow for the rider. In this process, note the outside limit position.

Clutch

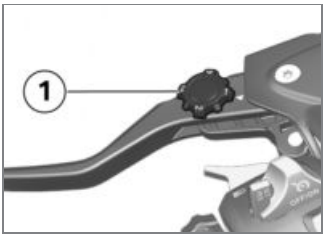
Adjusting the clutch lever

WARNING

Changed clutch-fluid reservoir position
Air in the clutch system
- Do not twist the handlebar operating element.◀

WARNING

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



- Turn knob **1** to the desired position.

NOTICE

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

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

Brakes

Adjusting the front brake lever

WARNING

Changed position of the brake fluid reservoir

Air in the brake system

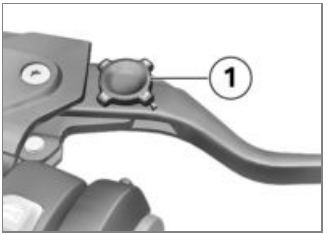
- Do not turn the handlebar fitting on the handlebar.◀

WARNING

Adjusting the brake lever while riding

Risk of accident

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



- Turn knob **1** to the desired position.

NOTICE

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

» Four settings are possible:

– Position 1: smallest distance between handlebar grip and brake lever.

– Position 4: largest distance between handlebar grip and brake lever.

Riding

Safety instructions 98
Comply with checklist..... 100
Always before riding off 100
Every 3rd refuelling stop 100
Starting 100
Running in 102
Brakes 103
Parking your motorcycle 106
Refuelling 106
Securing motorcycle for transportation 110

Safety instructions

Rider's equipment

Do not ride without the correct clothing! Always wear:
– Helmet
– Motorcycling jacket and trousers
– Gloves
– Boots

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

Load correctly

⚠ WARNING

Handling adversely affected by overloading and imbalanced loads
Risk of falling

- Do not exceed the permissible gross weight and be sure to comply with the instructions on loading.◀
- Set spring preload, damping characteristic and tyre pressures to suit total weight.
- Make sure that the weight is uniformly distributed between right and left.
- Pack heavy items at the bottom and toward the inboard side.
- Note the maximum permissible payload and the speed limit for riding with cases fitted, as stated on the label inside the case.
- Note the maximum permissible payload and the speed limit for riding with topcase fitted, as stated on the label inside the topcase.

Speed

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

Risk of burn injury

CAUTION

Engine and exhaust system become very hot when the vehicle is in use

Risk of burn injury

- When you park the vehicle make sure that no-one and no objects can come into contact with the hot engine and exhaust system.◀

Catalytic converter

If misfiring causes unburned fuel to enter the catalytic converter, there is a danger of overheating and damage.

The following guidelines must be observed:

– Do not run the fuel tank dry.
– Do not attempt to start or run the engine with a spark-plug cap disconnected.
– Stop the engine immediately if it misfires.
– Use only unleaded fuel.
– Comply with all specified maintenance intervals.

ATTENTION

Unburned fuel in catalytic converter

Damage to catalytic converter

- Note the points listed for protection of the catalytic converter.◀

Risk of overheating

ATTENTION

Engine running for prolonged period with vehicle at standstill

Overheating due to insufficient cooling; in extreme cases vehicle fire

- Do not allow the engine to idle unnecessarily.
- Ride away immediately after starting the engine.◀

Manipulation

ATTENTION

Tampering with the motorcycle (e.g. engine management ECU, throttle valves, clutch)

Damage to the affected parts, failure of safety-relevant functions, voiding of warranty

- Do not tamper with the vehicle in any way that could result in tuned performance.◀

Comply with checklist

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

Always before riding off

- Check operation of the brake system.
- Check operation of the lights and signalling equipment.
- Checking clutch function (➠ 133).
- Check the tyre tread depth (➠ 135).
- Check that cases and luggage are securely held in place.

Every 3rd refuelling stop

- Checking engine oil level (➠ 128).
- Checking front brake pad thickness (➠ 130).
- Check rear brake pad thickness (➠ 130).
- Checking brake-fluid level, front brakes (➠ 131).
- Checking the brake-fluid level, rear brakes (➠ 132).
- Check coolant level (➠ 133).

Starting

Start engine

- Switch on the ignition.

» Pre-Ride-Check is performed. (➠ 101)

» Running ABS self-diagnosis. (➠ 101)

» DTC self-diagnosis is in progress. (➠ 102)

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

NOTICE

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

- When starting a cold engine at low ambient temperatures: disengage the clutch and turn the twistgrip slightly to open the throttle.



- Press starter button **1**.

NOTICE

The start attempt is automatically interrupted if battery voltage

is too low. Recharge the battery before you start the engine, or use jump leads and a donor battery to start.
See the subsection on jump starting in "Maintenance" for more details.◀

» The engine starts.
» Consult the troubleshooting chart below if the engine refuses to start. (➠ 172)

Pre-Ride-Check

After having switched on the ignition, the instrument cluster tests the ABS and ASC indicator and warning lights, the general warning light as well as the needles. The logo appears on the display during this process.

Phase 1


The ABS indicator and warning light shows.


General warning light lights up yellow.

Phase 2


The ABS indicator and warning light shows.


The "General" warning light shows red.

If the general warning light is not shown:

⚠ WARNING

Faulty "General" warning light.
No indication of malfunctions.

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

ABS self-diagnosis

The operational readiness of BMW Motorrad Integral ABS is checked using self-diagnosis. Self-diagnosis starts automatically when you switch on the ignition.

Phase 1

» Test of the diagnosis-compatible system components with the vehicle at a standstill.


The ABS indicator and warning light flashes.

Phase 2

» Test of the wheel-speed sensors as the vehicle pulls away from rest. The motorcycle must reach a speed of at least 5 km/h in order for ABS self-diagnosis to complete.


The ABS indicator and warning light flashes.

ABS self-diagnosis completed

» The ABS indicator and warning light goes out.

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

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

DTC self-diagnosis

BMW Motorrad DTC performs self-diagnosis to check operational readiness. Self-diagnosis is performed automatically when you switch on the ignition.

Phase 1

» Test of the diagnosis-compatible system components with the vehicle at a standstill.



The DTC indicator light flashes slowly.

Phase 2

» Test of the diagnosis-compatible system components while the motorcycle is on the move. The motorcycle must reach a speed of at least 5 km/h with the engine running in order for DTC self-diagnosis to complete.



The DTC indicator light flashes slowly.

DTC self-diagnosis completed

» The DTC symbol no longer shows.

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

- You can continue to ride. Bear in mind that the DTC function is not available.
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Running in

Engine

- Until the first running-in check, vary the throttle opening and engine-speed range frequently; avoid riding at constant engine rpm for prolonged periods.
- Select a route with plenty of turns and minor hills, but avoid motorways where possible.
- Comply with the rpm limits for running in.

 Running-in speed
<5000 min^{-1} (Odometer reading 0...300 km)
<6500 min^{-1} (Odometer reading 300...1000 km)
No full load (Odometer reading 0...1000 km)

- Have the first running-in check carried out after 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. This running in procedure is essential if the tyres are to achieve maximum grip.

WARNING

New tyres losing grip on wet roads and at extreme bank angles

Risk of accident

- Ride carefully and avoid extremely sharp inclines.◀

Brakes

How can stopping distance be minimised?

Each time the brakes are applied, a load distribution shift takes place with the load shifting forward from the rear to the front wheel. The sharper the vehicle decelerates, the more load is shifted to the front wheel. The higher the wheel load, the more braking force can be transmitted without the wheel locking.
To optimise stopping distance, apply the front brakes rapidly and keep on increasing the force you apply to the brake lever. This makes the best possible use of the dynamic increase in load at the front wheel. Remember to pull the clutch at the same time. In the "panic braking situations" that are trained so frequently, braking force is applied as rapidly as possible and with the

rider's full force applied to the brake levers; under these circumstances, the dynamic shift in load distribution cannot keep pace with the increase in deceleration and the tyres cannot transmit the full braking force to the surface of the road.
The BMW Motorrad Integral ABS prevents the front wheel from locking up.

Hazard braking

If you brake sharply from a speed in excess of 50 km/h, the brake light flashes rapidly as an additional warning for road users behind you.
The hazard warning lights system switches on if you brake to below 15 km/h in this process.
The hazard warning lights system automatically switches off from a speed of 20 km/h.

Descending mountain passes

WARNING

Braking only with the rear brake on mountain descents.
Brake fade. Destruction of the brakes due to overheating.
- Use the front brake and utilise engine braking.◀

DANGER

Riding with overheated brakes
Risk of accident due to brake system failure
- Continue riding moderately (air stream speeds up the cooling of the brakes).
- Avoid frequent braking by downshifting at an early stage (e.g. when driving downhill).◀

WARNING

Disregard of the maintenance intervals (reliance on warning light)
Risk of accident, because the warning light only displays an excessive temperature of the regularly maintained brake system.
- It is imperative that the valid maintenance intervals for the brakes be complied with since no warning light can replace the regular maintenance of the brake system.◀

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 motorcycle has been washed.
– Riding on salted or gritted roads.
– After work has been carried on the brakes, due to traces of oil or grease.
– Riding on dirt-covered surfaces or off-road.

WARNING

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

ABS Pro

Physical limits applicable to motorcycling

WARNING

Braking when cornering
Risk of crash despite ABS Pro
- Invariably, it remains the rider's responsibility to adapt riding style to riding conditions.
- Do not take risks that would negate the additional safety offered by this system.◀

ABS Pro is available in all riding modes.

Possibility of a fall not precluded

Although ABS Pro provides the rider with valuable assistance and constitutes a huge advance in safety for braking with the motorcycle banked for cornering, it cannot under any circumstances be considered as redefining the physical limits that apply to motorcycling. It is still possible for these limits to be overshot due to misjudgement or rider error. In extreme cases this can result in a crash.

Use on public roads

ABS Pro helps make the motorcycle even safer for riding on public roads. When the brakes are applied because of an unforeseen hazard when the motorcycle is banked for cornering, within the physical limits that apply to motorcycling the system prevents the wheels from locking and skidding away.

NOTICE

ABS Pro was not developed to enhance individual braking performance with the motorcycle banked into corners in situations approaching the limits of performance.◀

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.◀
- Extend the side stand and prop the motorcycle on the stand.

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.◀
- 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.

Centre stand

- Switch off the engine.

ATTENTION

Poor ground underneath the stand

Risk of damage to parts if vehicle topples

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

ATTENTION

Centre stand folds in due to sharp movements

Risk of damage to parts if vehicle topples

- Do not lean or sit on the vehicle with the centre stand extended.◀
- Extend the centre stand and lift the motorcycle onto the stand.

Refuelling

Fuel grade

Requirement

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).◀

- You can run the engine on fuel with a maximum ethanol content of 10 %, i.e. E10.

Recommended fuel grade
Super unleaded (max. 10 % ethanol, E10) 95 ROZ/RON 89 AKI

Refuelling

WARNING

Fuel is highly flammable

Risk of fire and explosion

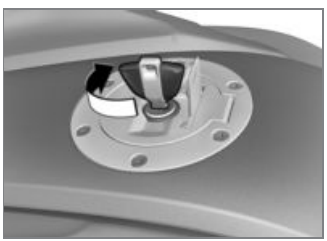
- Do not smoke. Never bring a naked flame near the fuel tank.◀

ATTENTION

Wetting of plastic surfaces by fuel

Damage to the surfaces (surfaces become unsightly or dull)

- Clean plastic surfaces immediately after contact with fuel.◀
- Place the motorcycle on its stand on firm, even ground.
- Open the protective cap.



- Unlock and open the fuel tank lock using the ignition key.



WARNING

Escape of fuel due to heat-induced expansion if fuel tank is overfilled

Risk of falling

- Do not overfill the fuel tank.◀
- Refuel with fuel of the grade stated below; do not fill the tank beyond the bottom edge of the fuel filler neck.

NOTICE

When refuelling after running on reserve, make sure that you top up the tank to a level above re-

serve, as otherwise the new level will not be registered and the fuel warning light indicating that the level is down to reserve will not be switched off.◀

 Usable fuel capacity
approx. 26.5 l

 Reserve fuel
approx. 4 l

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

Refuelling

– with Keyless Ride[OE]

Requirement

The steering lock is disengaged.

WARNING

Fuel is highly flammable

Risk of fire and explosion

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

WARNING

Escape of fuel due to heat-induced expansion if fuel tank is overfilled

Risk of falling

- Do not overfill the fuel tank.◀

ATTENTION

Wetting of plastic surfaces by fuel

Damage to the surfaces (surfaces become unsightly or dull)

- Clean plastic surfaces immediately after contact with fuel.◀
- Make sure the ground is level and firm and place the motorcycle on its side stand.

NOTICE

The volume of the tank can be utilised to the full only when the motorcycle is propped on its side stand.◀

– with Keyless Ride[OE]

- Switching off ignition (➠ 55).

NOTICE

The fuel filler cap can be opened within the defined waiting time after the ignition has been switched off, without the radio-operated key being within range.◀

 Waiting time for opening fuel filler cap
2 min

» There are **two variant ways** of opening the fuel filler cap:
– Within the waiting time.
– After the waiting time has expired.

Version 1

– with Keyless Ride[OE]

Requirement

Within the waiting time



- Pull up tab **1** of the fuel filler cap slowly.

» Fuel filler cap unlocks.

- Fully open the fuel filler cap.

Version 2

– with Keyless Ride[OE]

Requirement

After the waiting time has expired

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

» The telltale light for the radio-operated key flashes while the search for the radio-operated key is in progress.

- Again slowly pull up tab **1** of the fuel filler cap.

» Fuel filler cap unlocks.

- Fully open the fuel filler cap.



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

NOTICE

When refuelling after running on reserve, make sure that you top up the tank to a level above reserve, as otherwise the new level will not be registered and the fuel warning light indicating that the level is down to reserve will not be switched off.◀

NOTICE

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

Usable fuel capacity
approx. 26.5 l

Reserve fuel
approx. 4 l

- Press down firmly on the filler cap of the fuel tank.

» The fuel filler cap engages with an audible click.

» The fuel filler cap locks automatically when the waiting time expires.

» The engaged fuel filler cap locks immediately when you secure the steering lock or switch on the ignition.

Securing motorcycle for transportation

- Make sure that all components that may come into contact with tensioning straps are adequately protected against scratching. For instance, use adhesive tape or soft cloths for this purpose.

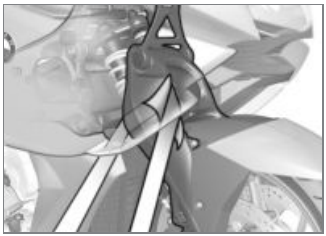


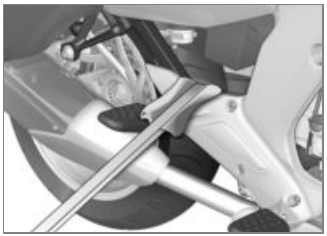
ATTENTION

Vehicle topples to side when being lifted on to stand

Risk of damage to parts if vehicle topples

- Secure the vehicle to prevent it toppling, preferably with the assistance of a second person.◀
- Push the motorcycle onto the transportation flat and hold it in position: do not place it on the side stand or centre stand.





ATTENTION

Routing of tensioning straps not in compliance with correct procedure

Damage to brake lines, Bowden cables, bearings and trim panels

- Carefully route retaining straps.
- Use a cloth to protect painted components from scratches.◀
- Guide the tensioning straps through the front suspension on the left and right and then tighten towards the bottom.
- Secure the straps behind on both sides on the rear frame and tighten.
- Do not pull the tensioning straps over the footrests.
- Tighten all tensioning straps evenly.

Engineering details

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General instructions

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

Anti-lock brake system (ABS)

Partially integral brakes

Your motorcycle is equipped with partially integral brakes. Both front and rear brakes are applied when you pull the handbrake lever. The footbrake lever acts only on the rear brake.
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 burn out tyres.◀

How does ABS work?

The amount of braking force that can be transferred to the road depends on factors hat include the coefficient of friction of the road surface. Loose stones, ice and snow or a wet road all have much lower coefficients of friction than a clean, dry asphalt surface. The lower the coefficient of friction, the longer the braking distance.
If the rider increases braking pressure to the extent that braking force exceeds the maximum transferrable limit, the wheels start to lock and the motorcycle loses its directional stability; a fall is imminent. Before this situation can occur, ABS intervenes and adapts braking pressure to the maximum transferrable braking force, so the wheels continue to turn and directional stability is maintained irrespective of the condition of the road surface.

What are the effects of surface irregularities?

Humps and surface irregularities can cause the wheels to lose contact temporarily with the road surface; if this happens the braking force that can be transmitted to the road can drop to zero. If the brakes are applied under these circumstances the ABS has to reduce braking force to ensure that directional stability is maintained when the wheels regain contact with the road surface. At this instant the BMW Motorrad Integral ABS must assume an extremely low coefficient of friction, so that the

wheels will continue to rotate under all imaginable circumstances, because this is the precondition for ensuring directional stability. As soon as is registers the actual circumstances, the system reacts instantly and adjusts braking force accordingly to achieve optimum braking.

What feedback does the rider receive from the 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

Even under severe braking, a high level of tyre grip can mean that the front wheel does not lock up until very late, if at all. Consequently, ABS does not intervene until very late, if at all. Under these circumstances the rear wheel can lift off the ground, and the outcome can be a high-siding 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 Integral ABS?

Within the limits imposed by physics, the BMW Motorrad Integral ABS ensures directional stability on any surface. The system is not optimised for special requirements that apply under extreme competitive situations off-road or on the track.

Special situations

The speeds of the front and rear wheels are compared as one means of detecting a wheel's incipient tendency to lock. If the system registers implausible values for a lengthy period the ABS function is deactivated for safety reasons and an ABS

fault message is issued. Self-diagnosis has to complete before fault messages can be issued. In addition to problems with the BMW Motorrad Integral ABS, exceptional riding conditions can lead to a fault message being issued.

Exceptional riding conditions:

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

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

What significance devolves on regular maintenance?

WARNING

Brake system not regularly serviced.

Risk of accident

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

Reserves for safety

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

Take care when cornering! When you apply the brakes on a corner, the motorcycle's weight and momentum take over and even BMW Motorrad Integral ABS is unable to counteract their effects.

Evolution of ABS to ABS Pro

Until now, the BMW Motorrad ABS helped ensure a very high degree of safety for braking with the motorcycle upright and travelling in a straight line. Now ABS Pro offers enhanced safety for braking in corners as well. ABS Pro prevents the wheels from locking even under sharp braking. ABS Pro reduces abrupt changes in steering force, particularly in panic-braking situations, counteracting the vehicle's otherwise natural but undesirable tendency to straighten up.

ABS intervention

Technically speaking, depending on the riding situation ABS Pro adapts ABS intervention to the motorcycle's bank angle. Signals for rate of roll and rate of yaw and lateral acceleration are used to calculate bank angle. These signals come from the angular rate sensor, an integral component of Dynamic Traction Control DTC and Dynamic ESA.

As the motorcycle is heeled over more and more as it banks into a corner, an increasingly strict limit is imposed on the brake-pressure gradient for the start of brake application. This slows the build-up of brake pressure to a corresponding degree. Additionally, pressure modulation is more uniform across the range of ABS intervention.

Advantages for the rider

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

Dynamic Traction Control (DTC)

How does DTC work?

The BMW Motorrad DTC 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 control intervenes and adapts the engine torque accordingly.

⚠ WARNING

Risky riding

Risk of accident despite DTC

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

What is the design baseline for BMW Motorrad DTC?

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

The system is not optimised for special requirements that apply under extreme competitive situ-

ations off-road or on the track. You have the option of deactivating the BMW Motorrad DTC system for these circumstances.

WARNING

Risky riding

Risk of accident despite DTC

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

Special situations

In accordance with the laws of physics, the ability to accelerate is restricted more and more as the angle of heel increases. Consequently, there can be a perceptible reduction in acceleration out of very tight bends.

The speeds of the front and rear wheels are compared and the angle of heel taken into account as one means of detecting the rear wheel's incipient tendency to spin or slip sideways. If the electronic processor receives values that it considers implausible over a lengthy period, a dummy value is used for the angle of heel or the DTC function is switched off. Under these circumstances, the indicator for a DTC fault is displayed. Self-diagnosis has to complete before fault messages can be issued.

The BMW Motorrad DTC can issue an error message under the exceptional riding conditions outlined below.

Exceptional riding conditions:

– Riding for a lengthy period with the front wheel lifted off the ground (wheelie) with DTC deactivated.
– Rear wheel rotating with the vehicle held stationary by applying the front brake (burnout).
– Heating up with the motorcycle on an auxiliary stand, in neutral or with a gear engaged.

If the front wheel lifts clear of the ground under severe acceleration, the DTC reduces engine torque until the front wheel regains contact with the ground. Under these circumstances, BMW Motorrad recommends rolling the throttle slightly closed so as to restore stability with the least possible delay.

When riding on a slippery surface, never snap the throttle twistgrip fully closed without pulling the clutch at the same time. Engine braking torque can cause the rear wheel to skid, with a corresponding loss of stability. The BMW Motorrad DTC is un-

able to control a situation of this nature.

Electronic Suspension Adjustment (D-ESA)

Possible settings

Dynamic ESA enables you to adjust your motorcycle's suspension to suit the load and the surface conditions.
By interpreting ride height sensor signals, Dynamic ESA detects movements in the chassis and suspension and responds by adjusting the damping valves. The chassis and suspension will thus be adapted to the characteristics of the terrain.
The DYNAMIC setting enables you to set the damping to a more sporty setup than that offered by ROAD, which is the basic setting.
The suspension setting depends on the riding mode selected.
The damping defined by the riding mode can be changed by the rider.
Dynamic ESA calibrates itself at regular intervals when stationary with the engine running to ensure the correct operating principle of the system. During this calibration, chassis and suspension adjustment is not possible.

Riding mode

Selection

Three riding modes enable the motorcycle's characteristics to adapt to the prevailing weather conditions, the road and traffic, and the rider's style of riding:
– RAIN
– ROAD
– DYNAMIC

Each of these modes produces perceptible differences in the way the motorcycle behaves.
DTC can be switched off in each mode; the explanations below invariably refer to conditions with the system switched ON. The mode last selected is automatically reactivated after the ignition has been switched off and then on again.
The basic rule is: the sportier the mode you select, the more directly can you tap into the engine's reserves of power. At the same time, the level of rider assistance that the DTC system offers decreases accordingly. Consequently, you must always bear the following in mind with regard to your selection of a ride mode: The sportier the setting, the greater the challenge to your riding skill!

RAIN
The engine's full power is not made available. Power increase when you open the throttle is reserved, engine response is correspondingly soft.
The DTC system intervenes early enough to prevent the rear wheel from spinning. On road surfaces with high to medium grip (dry and wet asphalt to dry cobblestones) the vehicle remains very stable; movements of the tail are clearly perceptible only on slippery road surfaces (wet bitumen or wet cobblestones).

ROAD
The engine's full power is available in this mode. Power increase when you open the throttle is more direct than in RAIN mode, the engine responds more rapidly.
DTC system intervention is later than in RAIN mode. On road surfaces with high to medium grip (dry and wet asphalt to dry cobblestones) the motorcycle remains stable. Slight rear-wheel drift is perceptible. Movements of the tail are clearly perceptible on slippery road surfaces (wet bitumen or wet cobblestones).

DYNAMIC
The DYNAMIC mode is the sportiest mode.
Power increase and engine response are the same as in ROAD mode. Response to rider input, however, is considerably more direct.
DTC system intervention is even later, which means that even on dry asphalt drifting is possible under sharp acceleration when cornering.

Mode changes

The engine control and Dynamic Traction Control functions can only be changed if no drive torque applies to the rear wheel. In order to achieve this state,
– The motorcycle must be at a standstill with the ignition switched on

or
– The throttle grip must be in the fully closed position.

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

Tyre pressure monitoring (RDC)

– with tyre pressure control (RDC)[OE]

Function

A sensor integrated into each tyre measures the air temperature and the air pressure inside the tyre and transmits this information to the control unit. Each sensor has a switch that does not enable transmission of the measured values until the motorcycle has accelerated to about 30 km/h. The display shows –– for each tyre until the tyre-pressure signal is received for the first time. The sensors continue to transmit the measured-value signals for approximately 15 minutes after the vehicle comes to a stop.
An error message is issued if wheels without sensors are fitted to a vehicle equipped with an RDC control unit.

Temperature compensation

Tyre pressure is a temperature-sensitive variable: pressure increases as tyre temperature rises and decreases as tyre temperature drops. Tyre temperature depends on ambient temperature, on the style of riding and the duration of the ride.
The tyre-pressure readings shown by the multifunction display are temperature-compensated; the reference tyre temperature for these readings is always 20 °C. The gauges on service station air lines do not compensate for temperature. The tyre pressure recorded depends on tyre temperature. In most instances, therefore, these gauge readings will not tally with the pressures shown by the multifunction display. The warmer the tyres, the more the tester value exceeds the display value.

Pressure adaptation

Compare the RDC readings on the multifunction display with the value in the table on the inside cover of the Rider's Manual. Then use the air line to compensate for the difference between the RDC reading and the value in the table.

Example: According to the Rider's Manual, tyre pressure should be 2.9 bar, but the reading in the multifunction display is 2.7 bar, so pressure is low by 0.2 bar. The gauge on the air line shows 2.5 bar. You must now increase tyre pressure by the 0.2 bar difference between the value in the table and the RDC reading; when the air-line gauge shows 2.7 bar,

the tyre is inflated to the correct pressure.

Shift assistant

– with shift assistant Pro OE

Shift assistant Pro

Your vehicle is equipped with shift assistant, a feature that was originally developed for racing and has been adapted for touring. It permits upshifts and downshifts without declutching or closing the throttle in virtually all load and rpm ranges.

Advantages

– 70-80 % of all gearshifts on a trip can be done without using the clutch.
– Less relative movement between rider and passenger because the shift pauses are shorter.
– It is not necessary to close the throttle valve when shifting under acceleration.
– When braking and downshifting (throttle valve closed), engine speed is adjusted by blipping the throttle.
– Shift time is shorter than a gearshift with clutch actuation.

In order for the system to identify a request for a gearshift, the rider has to move the shift lever from its idle position in the desired direction against the force of the spring through a certain "overtravel" at ordinary speed or rapidly and keep the shift lever in this position until the gearshift is completed. It is not necessary to increase the force applied to the shift lever while shifting is in progress. Once the gear shift has completed, the gearshift lever must be fully released before being able to carry out another gear shift using the Pro shift assistant. Constantly maintain the corresponding load condition (throttle grip position) before and during gear shifts using the shift assistant. A change in the position of the throttle twistgrip during a gearshift can cause the function to abort and/or lead to a missed shift. The shift assistant does not provides assistance for gear shifts involving clutch control.

Downshifting

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

 Maximum engine speed
max 8500 min^{-1}

Upshifting

– Upshifting is assisted until idle rpm for the target gear to be selected is reached.
– This prevents the engine from dropping below idle speed.

 Idle speed
$900^{\pm 50}$ min^{-1} (Engine at regular operating temperature)

Hill Start Control

– with Hill Start Control[OE]

Hill Start Control function

Hill Start Control assistant prevents the motorcycle from rolling backwards uncontrolled on gradients by intervening specifically with the ABS brake system without the driver having to constantly operate the brake lever. The pressure in the rear brake system is built up when Hill Start Control is activated in order to keep the motorcycle stationary on an inclined surface.
The holding pressure built up in the brake system depends on the steepness of the gradient.

Influence of the holding pressure on the driving off behaviour

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

Behaviour when the motorcycle rolls or slips

– If the motorcycle rolls when Hill Start Control is activated, the brake pressure increases.
– If the rear wheel slips, the brake is released again after approx. 1 m. This prevents the vehicle slipping down the hill with the rear wheel blocked.

Releasing the brake when stopping the engine

Hill Start Control is deactivated when the engine is stopped using the emergency stop switch or when the side stand is folded out.
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 brake is released slowly.
- The motorcycle is not braked.
- The rider must brake the motorcycle manually.

NOTICE

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

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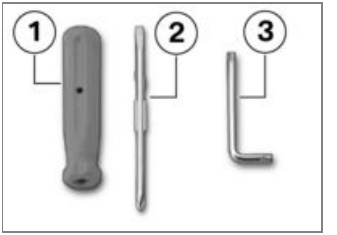
General instructions

The Maintenance chapter describes straightforward procedures for checking and replacing certain wear parts.
Special tightening torques are listed as applicable. The tightening torques for the threaded fasteners on your vehicle are listed in the section entitled "Technical data".
You will find information on more extensive maintenance and repair work in the Repair Manual on DVD for your vehicle, which is available from your authorised BMW Motorrad dealer.

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 dealer.

Toolkit

Standard toolkit



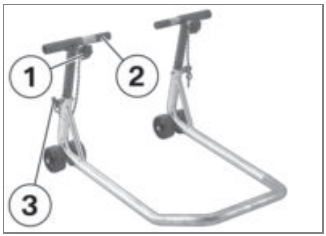
1 Screwdriver handle
2 Reversible screwdriver blade
Phillips PH1 and Torx T25
3 Torx wrench, T25/T30
T25 on short end, T30 on long end
– Replacing bulb for high-beam headlight (➠ 142).
– Disengage the number plate carrier.

Front-wheel stand

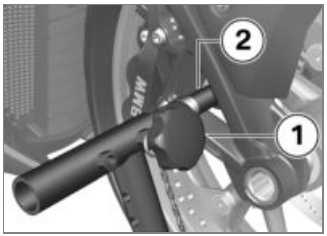
Fitting the front-wheel stand

ATTENTION

Use of the BMW Motorrad front wheel stand without accompanying use of centre stand or auxiliary stand
Risk of damage to parts if vehicle topples
- Place the motorcycle on its centre stand or another auxiliary stand before lifting the front wheel with the BMW Motorrad front-wheel stand.◀
- Use basic stand with tool number (83 30 0 402 241) in combination with front-wheel adapter (83 30 0 402 243).
- Make sure the ground is level and firm and place the motorcycle on its centre stand.



- Slacken locating screws **1**.
- Push the two adapter pins **2** apart until the front forks fit between them.
- Use locating pins **3** to set the front-wheel stand to the desired height.
- Centre the front-wheel stand relative to the front wheel and push it against the front axle.



ATTENTION

Excessive movement of the left-hand mounting bolt

Damaged sensor ring of the BMW Motorrad Integral ABS

- Only slide the left-hand mounting bolt towards the inside so that it does not come into contact with the sensor ring.◀
- Push both mounting pins **2** through the triangles of the brake calliper anchorages just far enough to allow the front wheel to be rolled between them.
- Tighten locating screws **1**.



ATTENTION

Centre stand retracts if motorcycle is lifted too high

Risk of damage to parts if vehicle topples

- When raising the vehicle, make sure that the centre stand remains on the ground.◀
- Apply uniform pressure to push the front-wheel stand down and raise the motorcycle.

Engine oil

Checking engine oil level

WARNING

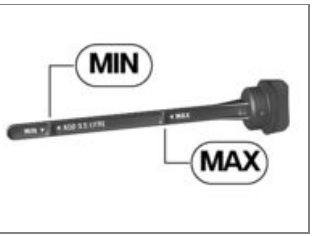
Engine oil level low
Risk of accident as a result of a blocked engine
- Always make sure that the oil level is correct.◀

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.◀
- Check that the engine is at operating temperature, make sure the ground is level and firm and place the motorcycle on its centre stand.
- Allow the engine to idle until the fan starts up, then allow it to idle one minute longer.
- Switch off the engine and wait for about one minute to allow the oil to drain into the sump.
- Wipe the area around the oil filler neck clean.



- Remove oil dipstick **1** and wipe it with a clean, dry cloth.
- Seat the oil dipstick on the oil filler neck, but do not engage the threads.
- Remove the oil dipstick and check the oil level.



Engine oil, specified level
Between MIN and MAX marks (Engine at regular operating temperature)

Engine oil, quantity for topping up
max 0.5 l (Difference between MIN and MAX)

If the oil level is below the MIN mark:
- Top up the engine oil (➠ 129).

If the oil level is above the MAX mark:
- Have the oil level corrected by a specialist workshop, preferably an authorised BMW Motorrad dealer.

- Install the oil dipstick.

Topping up engine oil

- Make sure the ground is level and firm and place the motorcycle on its stand.
- Wipe the area around the filler neck clean.



- Remove oil dipstick **1**.

ATTENTION

Use of insufficient engine oil or too much engine oil
Engine damage
- Always make sure that the oil level is correct.◀

- Top up the engine oil to the specified level.
- Checking engine oil level (➠ 128).
- Install the oil dipstick.

Brake system

Checking function of brakes

- Make sure the ground is level and firm and place the motorcycle on its stand.
- Pull the front brake lever.
» The pressure point must be clearly perceptible.
- Press the footbrake lever.
» The pressure point must be clearly perceptible.

If pressure points are not clearly perceptible:

ATTENTION

Work on brake system not in compliance with correct procedure
Risk to operational reliability of the brake system
- Have all work on the brake system undertaken by trained and qualified specialists.◀

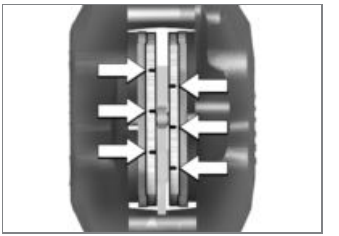
- Have the brakes checked by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Checking front brake pad thickness

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

If the wear indicating marks are no longer clearly visible:

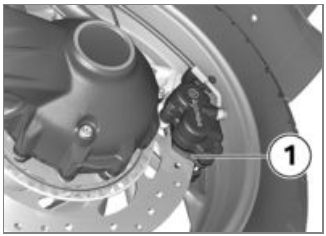
⚠ WARNING

Brake-pad thickness less than permissible minimum
Diminished braking effect, damage to the brakes

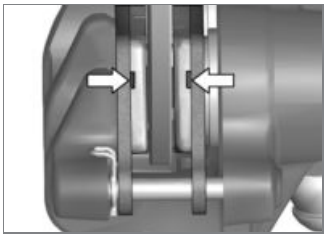
- In order to ensure the dependability of the brake system, do not permit the brake pads to wear past the minimum permissible thickness.◀
- Have the brake pads replaced by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Check rear brake pad thickness

- 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: from below toward brake pads **1**.



	Brake-pad wear limit, rear
min 1.0 mm (Friction pad only, without backing plate. The wear indicators (grooves) must have not been reached.)	

If the wear indicating mark is 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 dealer.

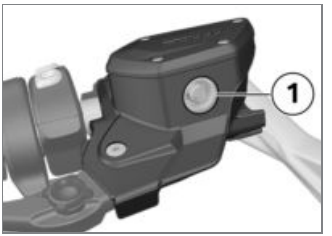
Checking brake-fluid level, front brakes

WARNING

Not enough brake fluid in brake fluid reservoir
Considerably reduced braking power due to air in the brake system

- Check the brake-fluid level at regular intervals.◀
- Make sure the ground is level and firm and place the motorcycle on its centre stand.

- Move the handlebars to the straight-ahead position.



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

NOTICE

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



Brake fluid level, front
Brake fluid, DOT4
It is impermissible for the brake fluid level to drop below the MIN mark. (Brake fluid tank is horizontal, vehicle on an even surface and handlebars in straight-ahead position.)

If the brake fluid level drops below the permitted level:

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

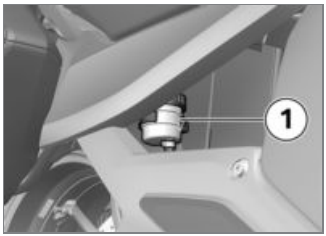
Checking the brake-fluid level, rear brakes

WARNING

Not enough brake fluid in brake fluid reservoir

Considerably reduced braking power due to air in the brake system

- Check the brake-fluid level at regular intervals.◀
- Make sure the ground is level and firm and place the motorcycle on its centre stand.



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

NOTICE

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



Brake fluid level, rear
Brake fluid, DOT4
It is impermissible for the brake fluid level to drop below the MIN mark. (Brake-fluid reservoir horizontal, motorcycle upright.)

If the brake fluid level drops below the permitted level:

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

Clutch

Checking clutch function

- Pull the clutch lever.

» The pressure point must be clearly perceptible.

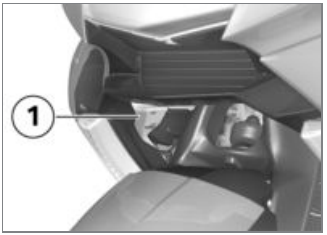
If the pressure point is not clearly perceptible:

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

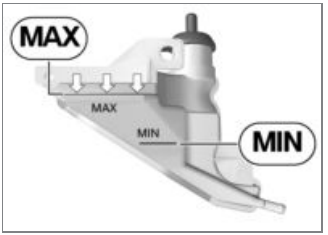
Coolant

Check coolant level

- Make sure the ground is level and firm and place the motorcycle on its stand.
- Allow the engine to cool down.



- Check the coolant level in expansion tank **1**.



Coolant, specified level
Between MIN and MAX marks on the expansion tank (Engine cold)

If the coolant drops below the permitted level:

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

Tyres

Checking tyre pressure

WARNING

Incorrect tyre pressure

Impaired handling characteristics of the motorcycle, shorter useful tyre life

- Always check that the tyre pressures are correct.◀
- 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
2.9 bar (One-up and two-up mode with load; with cold tyres)

 Tyre pressure, rear
2.9 bar (One-up and two-up mode with load; with cold tyres)

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

Wheel rims and tyres

Checking rims

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

Checking tyre tread depth

WARNING

Riding with badly worn tyres
Risk of accident due to impaired handling
- If applicable, have the tyres changed in good time before they wear to the minimum tread depth permitted by law.◀
- Make sure the ground is level and firm and place the motorcycle on its stand.
- Measure the tyre tread depth in the main tread grooves with wear marks.

NOTICE

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

If the tyre tread is worn to minimum:
- Replace tyre or tyres, as applicable.

Wheels

Tyre recommendation

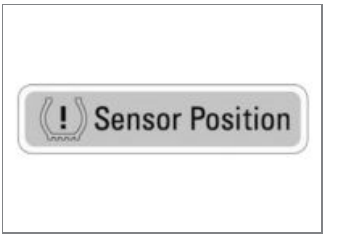
For each size of tyre BMW Motorrad tests and classifies as roadworthy certain makes. BMW Motorrad cannot assess the suitability or provide any guarantee of road safety for other tyres.
BMW Motorrad recommends using only tyres tested by BMW Motorrad.
You can obtain detailed information from your authorised BMW Motorrad dealer or on the Internet at **"www.bmw-motorrad.com"**.

Effect of wheel size on chassis and suspension control systems

Wheel size is very important as a parameter for the frame and suspension control systems ABS and DTC. In particular, the diameter and the width of the vehicle's wheels are programmed into the control unit and are fundamental to all calculations. Any change in these influencing variables, caused for example by a switch to wheels other than those installed ex-works, can have serious effects on the performance of the control systems. The sensor rings are essential for correct wheel speed detection; they too must match the motorcycle's control systems and consequently cannot be replaced. If you decide that you would like to fit non-standard wheels to your motorcycle, it is very important to consult a specialist workshop beforehand, preferably an authorised BMW Motorrad dealer. In some cases, the data programmed into the control units can be changed to suit the new wheel sizes.

RDC label

– with tyre pressure control (RDC)[OE]



ATTENTION

Tyre removal not in compliance with correct procedure

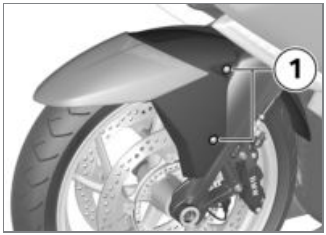
Damage to RDC sensors

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

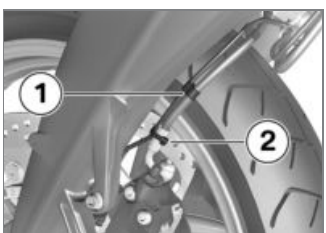
If the motorcycle is equipped with RDC, each wheel rim bears an adhesive label indicating the position of the RDC sensor. When changing the tyre, take care not to damage the RDC sensor. Be sure to draw the attention of the authorised BMW Motorrad dealer or specialist workshop to the fact that the wheel is fitted with an RDC sensor.

Remove the front wheel

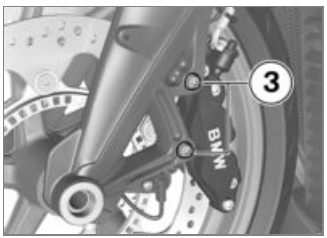
- Make sure the ground is level and firm and place the motorcycle on its centre stand.



- Remove screws **1** on left and right.
- Pull out the front-wheel cover towards the front.



- Unclip retaining clip **1** of the sensor cable from the brake line.
- Remove cable tie **2**.
- Mask off the parts of the wheel rim that could be scratched in the process of removing the brake calipers.



ATTENTION

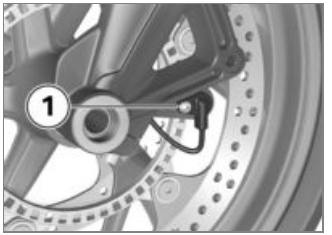
Unwanted inward movement of the brake pads

Component damage on attempt to install the brake caliper or because brake pads have to be forced apart

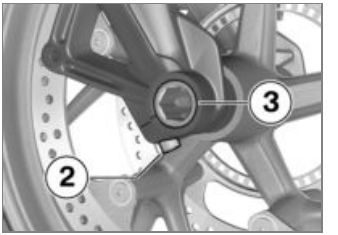
- Do not operate the brakes with a brake caliper not correctly secured.◀
- Remove screws **3** of the brake calipers on left and right.



- Force the brake pads **4** slightly apart by rocking brake caliper **5** back and forth against brake disc **6**.
- Carefully pull the brake calipers back and out until clear of the brake discs.



- Remove screw **1** and remove the wheel-speed sensor from its bore.
- Lift the front of the motorcycle until the front wheel is clear of the ground, preferably using a BMW Motorrad front-wheel stand.
- Fitting the front-wheel stand (➠ 126).



ATTENTION

Incorrect gap between sensor ring and wheel speed sensor due to misaligned threaded bush in front suspension

Damage to wheel speed sensor. ABS malfunction

- Left clamp locates the threaded bush; do not loosen or remove this clamp.◀
- Remove right-hand axle clamping screw **2**.
- Remove quick-release axle **3**, while supporting the wheel.
- Roll the front wheel forward to remove.

Installing front wheel

WARNING

Use of a non-standard wheel

Malfunctions in operation of ABS and DTC

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

ATTENTION

Tightening threaded fasteners to incorrect tightening torque

Damage, or threaded fasteners work loose

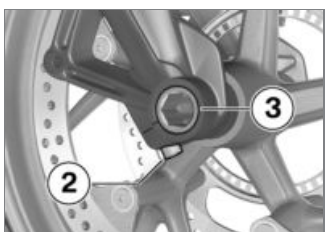
- Always have the security of the fasteners checked by a specialist workshop, preferably an authorised BMW Motorrad dealer.◀

ATTENTION

Front wheel installed wrong way round

Risk of accident

- Note direction-of-rotation arrows on tyre or rim.◀
- Roll the front wheel into position between the front forks.



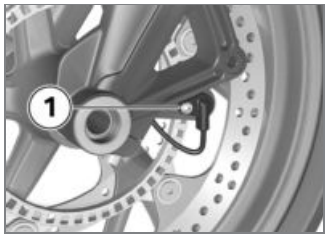
- Raise the front wheel, insert quick-release axle **3** and tighten to specified torque.

Quick-release axle in threaded bush (wheel carrier)
50 Nm

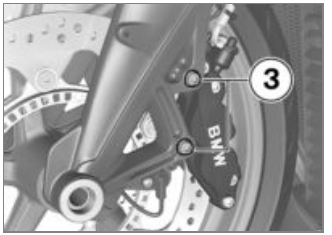
- Tighten right axle clamping screw **2** to the specified tightening torque.

Clamping screw for quick-release axle to wheel carrier
19 Nm

- Removing the front-wheel stand.

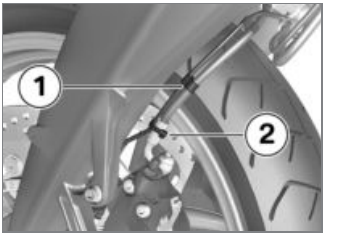


- Insert the ABS sensor into its bore and install screw **1**.
- Ease the brake calipers on to the brake discs.



- Install securing screws **3** on left and right and tighten to specified tightening torque.

	Front brake caliper to wheel carrier
30 Nm	



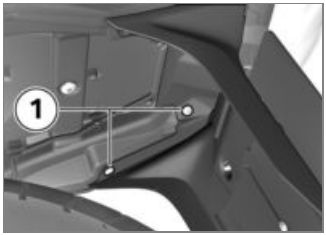
- Clip retaining clip **1** of the sensor cable to the brake line.
- Secure new cable tie **2**.
- Remove the adhesive tape from the wheel rim.
- Firmly pull the handbrake lever several times until a pressure point is perceptible.



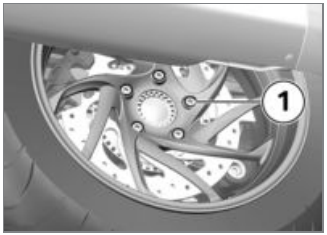
- Position the front-wheel cover and install the screws **1** on the left and right.

Remove the rear wheel

- Make sure the ground is level and firm and place the motorcycle on its centre stand.
- If necessary, remove cases.



- Remove screws **1** on left and right.
- Remove the number plate carrier.
- Engage first gear.



CAUTION

Hot exhaust system

Risk of burn injury

- Do not touch a hot exhaust system.◀
- Remove the five screws **1** of the rear wheel and in this process, support the wheel.
- Place the rear wheel on the ground and roll it out of the frame towards the rear.

Installing rear wheel

WARNING

Use of a non-standard wheel

Malfunctions in operation of ABS and DTC

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

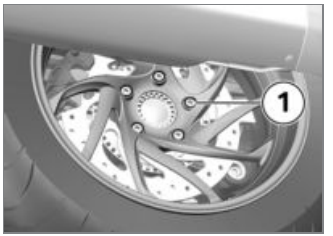
ATTENTION

Tightening threaded fasteners to incorrect tightening torque

Damage, or threaded fasteners work loose

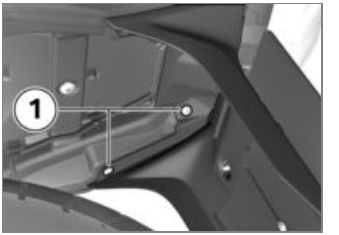
- Always have the security of the fasteners checked by a specialist workshop, preferably an authorised BMW Motorrad dealer.◀

- Roll the rear wheel to the rear-wheel mounting and position it.



- Install the five screws **1** and tighten crosswise to the specified torque.

	Rear wheel to wheel flange
Tightening sequence: tighten in diagonally opposite sequence	
60 Nm	



- Position the number plate carrier.
- Install screws **1** on left and right.

Light source

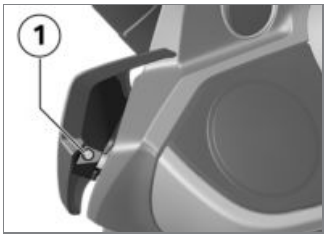
Replacing bulb for high-beam headlight

NOTICE

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



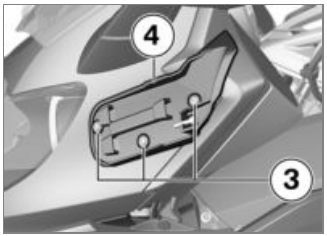
- Twist the slipstream deflector **1** towards the outside.
- Remove the screw **2** and remove the side panel **3** towards the rear.



- Slacken screw **1**.



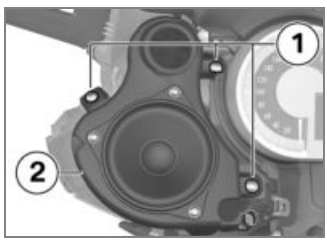
- Work wind deflector **2** to the rear to disengage.



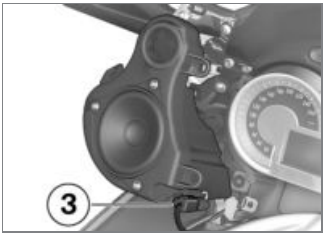
- Remove screws **3** and remove mounting **4**.



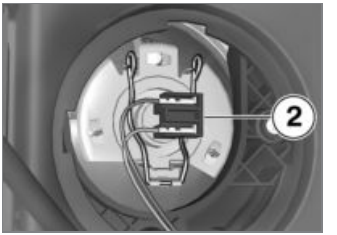
- Switch on the ignition and raise the windscreen to the limit position.
- Remove screw **1**.
- Remove the screw **2** and remove the hand protector **3** towards the side.
- Switch off the ignition and wait until the windscreen has moved to the bottom position.



- Remove screws **1**.
- Work speaker unit **2** to the rear to remove.



- Disconnect plug connection **3**.

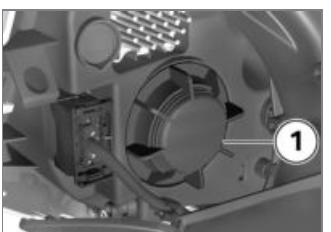


- Disconnect plug **2**.

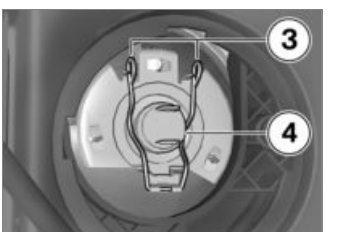
- Replace the defective bulb.

Bulb for high-beam headlight
H7 12 V 55 W

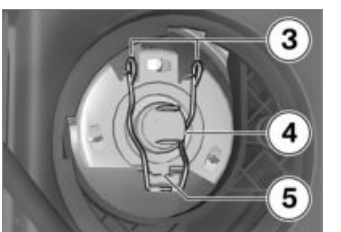
- Hold the bulb by the base only, in order to keep the glass free of foreign matter.



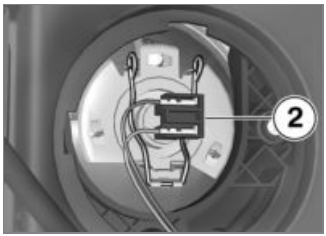
- Turn covers **1** counter-clockwise to remove.



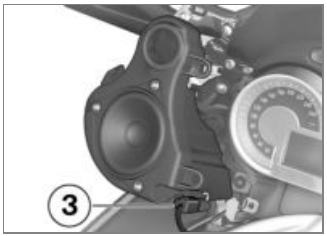
- Release spring clip **3** at left and right and swing it up.
- Remove bulb **4**.



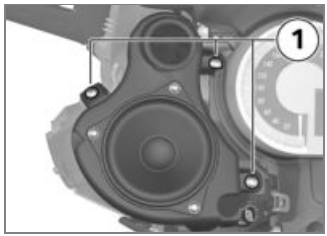
- Install bulb **4**, making sure that tab **5** is correctly positioned.
- Engage spring clip **3**.



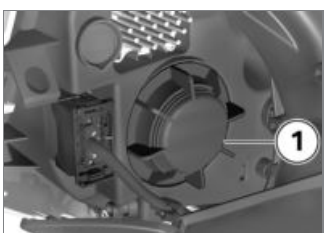
- Connect plug **2**.



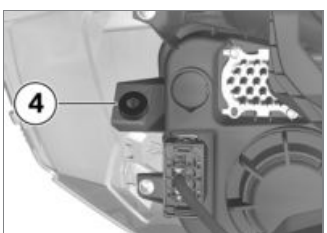
- Connect plug connection **3**.



- Install screws **1**.



- Turn covers **1** clockwise to install.

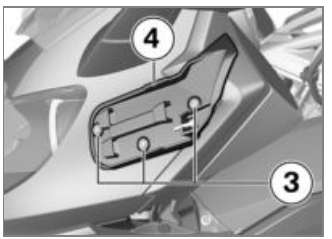


- Seat the speaker unit in mount **4**.

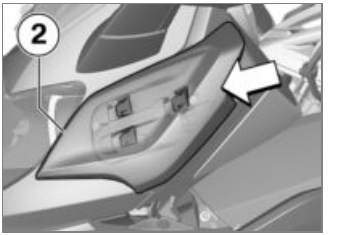


- Switch on ignition and move windscreen up to the limit position.
- Position hand protector **3** and install bolt **2**.

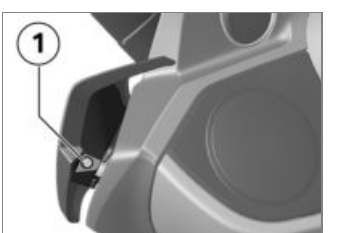
- Install screw **1**.
- Switch off ignition and wait until the windscreen has moved to the bottom position.



- Hold mounting **4** in position and install screws **3**.



- Hold wind deflector **2** in position from the rear, making sure that all three lugs are firmly seated in the mounting.



- Tighten screw **1**.



- Position the side panel **3** and install the screw **2**.
- Align the slipstream deflector **1**.

Replacing LED additional headlights

– with auxiliary headlights OE

The LED additional headlights can be replaced as a complete unit only.

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

Replace LED flashing turn indicators

The LED flashing turn indicators can be replaced only as a complete unit.

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

Replacing LED rear light

The LED rear light can be replaced only as a complete unit.

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

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.◀
- When jump-starting the engine, do not disconnect the battery from the on-board electrical system.
- Removing seat (➠ 89).
- Run the engine of the donor vehicle during jump-starting.
- Begin by connecting one end of the red jump lead to the positive terminal of the discharged battery and the other end to the positive terminal of the donor battery.

- Then connect one end of the black jump lead to the negative terminal of the donor battery, and the other end to the negative terminal of the discharged battery.
- Start the engine of the vehicle with the discharged battery in the usual way; if the engine does not start, wait a few minutes before repeating the attempt in order to protect the starter motor and the donor battery.
- Allow both engines to run for a few minutes before disconnecting the jump leads.
- Disconnect the jump lead from the negative terminal first, then from the positive terminal.
- Installing the seat (➠ 90).

Battery

Maintenance instructions

Correct upkeep, recharging and storage will prolong the life of the battery and are essential if warranty claims are to be considered.

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

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

ATTENTION

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

Battery is deep-discharged; this voids the guarantee

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

NOTICE

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

Charge battery when connected

ATTENTION

Charging the battery that is connected to the vehicle via the battery terminals

Damage to the on-board electronics

- Disconnect the battery at the battery terminals before charging.◀

ATTENTION

Charging a fully discharged battery via the socket or the extra socket

Damage to the on-board electronics

- If a battery has discharged to the extent that it is completely flat (battery voltage less than 9 V, status-indicator lights and multifunction display remain off when the ignition is switched on) **it has to be disconnected from the on-board circuits** and re-charged with the charger connected directly to the battery posts.◀

ATTENTION

Unsuitable chargers connected to a socket

Damage to charger and vehicle electronics

- Use suitable BMW chargers. The suitable charger is available from your authorised BMW Motorrad dealer.◀
- Charge via the charging socket, with the battery connected to the motorcycle's on-board electrical system.

NOTICE

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

- Comply with the operating instructions of the charger.

NOTICE

If you are unable to charge the battery through the on-board socket, you may be using a charger that is not compatible with your motorcycle's electronics. If this happens, charge the battery directly at the terminals of the battery that is disconnected from the vehicle.◀

Charging battery when disconnected

- Charge the battery using a suitable charger.
- Comply with the operating instructions of the charger.
- Once the battery is fully charged, disconnect the

charger's terminal clips from the battery terminals.

NOTICE

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

Removing battery

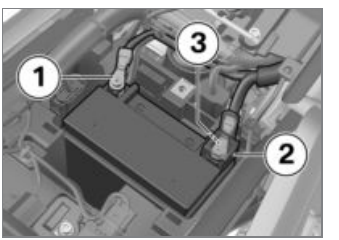
- Removing seat (➠ 89).



- Remove screw **1**.
- Flip cover **2** up, noting the retaining lug **3**.

– with alarm system (DWA) OE

- If applicable, switch off the anti-theft alarm.◁
- Switch off the ignition.



ATTENTION

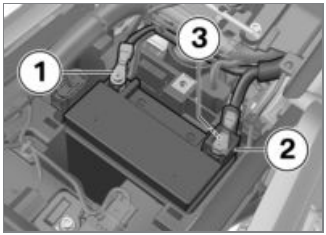
Battery not disconnected in accordance with correct procedure

Risk of short-circuit

- Always proceed in compliance with the specified disconnection sequence.◀
- Remove the battery earth lead **1**.
- Pull off the protective cap **2** and remove the positive battery cable **3**.
- Lift the battery up and out: work it slightly back and forth if it is difficult to remove.

Installing battery

- Place the battery in the battery compartment, positive terminal on the right in the forward direction of travel.

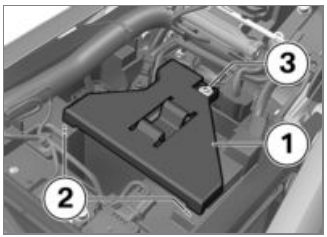


ATTENTION

Battery not connected in accordance with correct procedure

Risk of short-circuit

- Always proceed in compliance with specified installation sequence.◀
- Install the positive battery cable **3** first and position the protective cap **2**.
- Then install battery negative lead **1**.
- Switch on the ignition.
- Adjust the time and date in the `Settings - Clock` and `Settings - Date` menus.



- Position cover **1** with retaining lugs **2**.
- Install screw **3**.

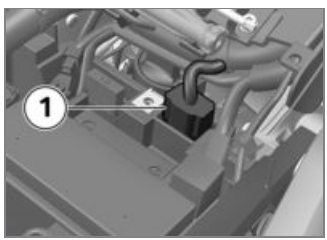
	Battery holder to rear carrier
3 Nm	

- Installing the seat (➠ 90).

Fuses

Replacing fuse

- Removing seat (➠ 89).
- Removing battery cover (➠ 150).
- Switch off the ignition.



- Pull off the fuse connector **1**.

ATTENTION

Jumpering of blown fuses

Risk of short-circuit and fire

- Never attempt to jumper a blown fuse.

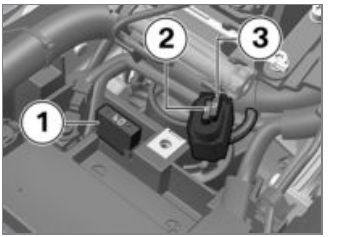
- Always replace a defective fuse with a new fuse of the same amperage.◀
- Consult the fuse assignment diagram and replace the defective fuse.

NOTICE

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

- Secure the fuse connector **1**.
- Install the battery cover (➠ 151).
- Installing the seat (➠ 90).

Fuse assignment



1 40 A
Main fuse

2 7.5 A
Audio system

3 Not used
– with alarm system (DWA)[OE]
or
– with central locking system[OE]
7.5 A
Anti-theft alarm
Central locking

Diagnostic connector

Disengaging diagnostic connector

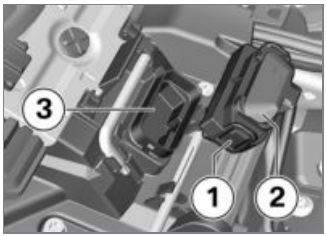
CAUTION

Incorrect procedure followed when loosening the diagnostic connector for the on-board diagnosis

Motorcycle experiences malfunctions

- Only have the diagnostic connector loosened by a specialist workshop or other authorised persons during your next BMW Service appointment.
- Have the work performed by appropriately trained staff.
- Refer to the vehicle manufacturer specifications.◀

- Removing seat (➠ 89).

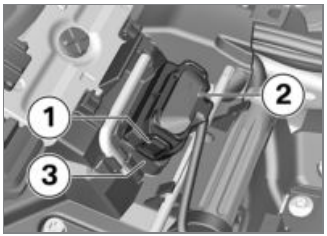


- Press locks **1**.
- Disengage the diagnostic connector **2** from the seat bench box **3**.

» The interface to the diagnosis and information system can be connected to diagnostic connector **2**.

Securing the diagnostic connector

- Disconnect the interface for the diagnosis and information system.



- Plug the diagnostic connector **2** into the seat box **3**.

» Retainers **1** engage with an audible click.

- Installing the seat (➠ 90).

Accessories

General instructions 156
Power sockets 156
Cases 157
Topcase 159
Navigation device 162

General instructions

⚠ CAUTION

Use of other-make products
Safety risk

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

BMW has conducted extensive testing of the parts and accessory products to establish that they are safe, functional and suitable. Consequently, BMW accepts product liability. BMW accepts no liability whatsoever for parts and accessories that it has not approved.
Whenever you are planning modifications, comply with all the legal requirements. Make sure that the vehicle does not infringe the national road-vehicle construction and use regulations applicable in your country.
Also bear in mind the information on the effect of wheel size on suspension control systems (➠ 136).
Your BMW Motorrad dealer can offer expert advice on the choice of genuine BMW parts, accessories and other products.
Any BMW Motorrad optional accessories are listed on our website: **"www.bmw-motorrad.com"**.

Power sockets

Notes on use of power sockets:

Automatic switch-off


The vehicle voltage is low if this warning symbol is displayed. If necessary, the sockets will be temporarily switched off.

The on-board sockets are also switched off when the engine is being cranked by the starter and if maximum load capability as stated in the technical data is exceeded.
If several sockets are in operation, the total current must not exceed the maximum load capacity.

Operating electrical accessories

Auxiliary devices operated using a socket can only be switched on when the ignition is switched on.

If the ignition is then switched off, sockets are also switched off in the event of high loads. In the event of lower loads, the sockets remain in operation for some time.

Cable routing

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

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

Cases

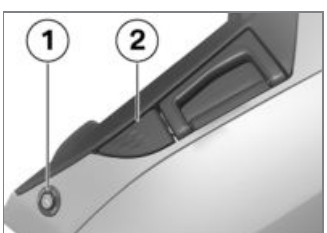
Open cases

– with central locking system OE

- If applicable, open the central locking.◁



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

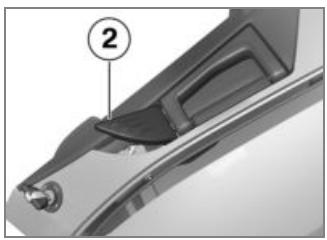


- Push lock barrel **1** down.

» Lever **2** pops up.

- Pull the release lever all the way up and open the lid of the case.

Close cases



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

NOTICE

The cases can also be locked by turning the lock to the LOCK position. In this case, ensure that

the vehicle key is not left in the cases.◀

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

Removing cases



- Turn the key to the RELEASE position in the case lock.

» The handle pops out.



- Pull carry handle **3** up as far as it will go.

» The case is released and can be removed.

Install cases

- Pull the handle up as far as it will go.



- Seat the case in holders **4**.



- Push handle **3** down until it engages.
- Turn the key in the case lock to the LOCK position and remove the key from the lock.

Maximum payload and maximum permissible speed

Note the maximum permissible payload and the speed limit for riding with cases fitted, as stated on the label inside the case. Contact your authorised BMW Motorrad dealer if you cannot find your combination of vehicle and cases on the label. The values for the combination described here are as follows:

Maximum permissible speed for riding with cases fitted to the motorcycle
max 180 km/h

Payload per case
max 10 kg

Topcase

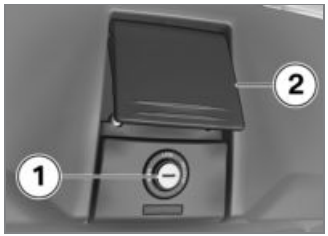
Opening topcase

– with central locking system OE

- If necessary, unlock the central locking system.◁



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



- Push lock barrel **1** forward.

» Lever **2** pops up.

- Pull the release lever all the way up and open the lid of the topcase.

Closing topcase



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

NOTICE

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

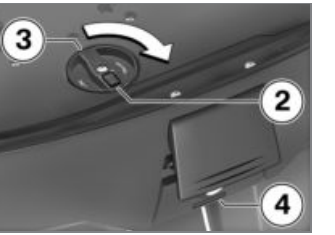
- Push release lever **2** down until it engages.
- Turn the key in the topcase lock to the LOCK position and remove the key from the lock.

Removing the topcase

- Removing seat (➠ 89).



- Disconnect plug **1**.
- Work the topcase-end plug through to the rear.
- Open the topcase.
- If applicable, empty the topcase and lift out the bottom mat.



- Push slide latch **2** toward the outside and hold it in this position.
- Turn rotary latch **3** in the direction indicated by the RELEASE arrow.

» Release warning **4** is visible.

- Close the topcase.



- Lift the topcase at the rear and remove it from the luggage carrier.

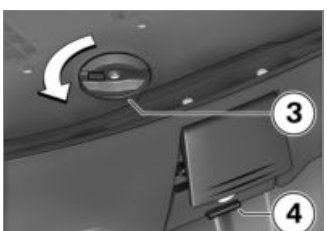
- Installing the seat (➠ 90).

Installing topcase

- Removing seat (➠ 89).
- If applicable, empty the topcase and lift out the bottom mat.



- Set the topcase on the luggage carrier.
- Opening topcase (➠ 159).

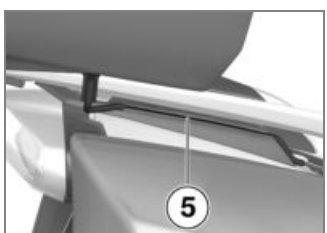


- Turn rotary latch **3** as far as it will go in the direction indicated by the LOCK arrow while pressing down on the back edge of the topcase.

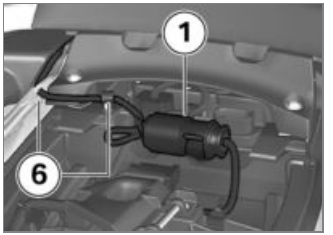
» Release warning **4** is no longer visible.

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

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



- Route the connecting cable forward in cable guide **5**.



- Work the cable into position at positions **6**.
- Connect plug **1**.

- Installing the seat (➠ 90).

Maximum payload and maximum permissible speed

Note the maximum permissible payload and the speed limit for riding with topcase fitted, as stated on the label inside the topcase.
Contact your authorised BMW Motorrad dealer if you cannot find your combination of vehicle and topcase on the label.
The values for the combination described here are as follows:

Maximum permissible speed for riding with topcase fitted to the vehicle
max 180 km/h

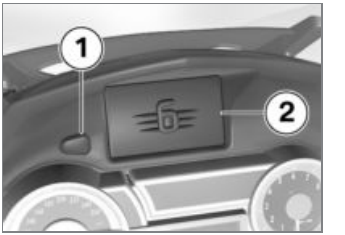
Payload of topcase
max 10 kg

Navigation device

Installing navigation device

– with navigation system OA

- Switch on the ignition.



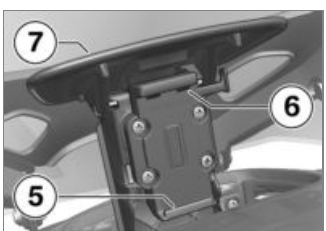
- Press button **1** to open the slot for the navigation device.

» Slot cover pops open, windscreen moves to top limit position.

- Pull slot cover up as far as it will go.
- From behind, push out cap **2**.



- Operate latch **3** and remove cover **4**.



- Initially insert the navigation device into mount **5**, then press it into latching mechanism **6**.
- Check that the navigation device is secure in the cradle.
- Press cover **7** to push cradle with navigation device into the slot until it snaps into position.

Removing navigation device

– with navigation system [OA]

- Switch on the ignition.



- Press button **1** to open the slot for the navigation device.

» Slot cover pops open, windscreen moves to top limit position.

- Pull slot cover up as far as it will go.



- Operate latch **3**, pull the navigation device forward out of holder **6** and lift it up and out.



- Install cover **4**.
- Press cover **7** to push the cradle into the slot until it snaps into position.

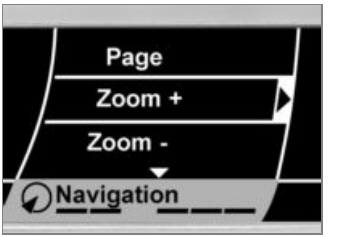


- Insert cap **2**.

Operating the navigation device

– with navigation system OA

- If necessary, switch on the navigation device.
- Open the Navigation menu.



Operating options for the navigation device are displayed.

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

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

Special functions

– with navigation system OA

Integration of the BMW Motorrad Navigator IV into the K 1600 GT series has produced a number of deviations from the descriptions in the operating instructions for the Navigator.

Traffic channel (TMC)

If an audio system is installed in the motorcycle, the audio system sends the traffic announcements to the Navigator. The symbol described in the operating instructions for the Navigator appears on the display.
It is not possible to receive traffic announcements from subscription services via the BMW Motorrad audio system.

Range

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

Time and date

The Navigator sends time and date to the motorcycle. Acceptance of these data for the readings on the instrument panel has to be activated in the user settings for the motorcycle.

Security settings

The BMW Motorrad Navigator IV can be secured against unauthorised use with a four-digit PIN (Garmin Lock). If this function is activated, while the Navigator is cradled on the motorcycle and the ignition is switched on you are prompted to add the motorcycle to the list of secured vehicles. If you answer "Yes" at this prompt the Navigator saves the VIN of this vehicle in its internal memory.
A maximum of five VINs can be saved in this way.
Subsequently, the PIN does not have to be entered when the Navigator is switched on by ignition ON while cradled in any of these vehicles.
If the Navigator is removed from the vehicle while switched on, a security prompt asking for the PIN to be entered is issued.

Screen brightness

Screen brightness is adjusted by the motorcycle while the unit is cradled. There is no provision for manual input.

Care

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Paint care 169
Protective wax coating 170
Laying up the motorcycle 170
Restoring motorcycle to use 170

Care products

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

ATTENTION

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

Washing the vehicle

BMW Motorrad recommends that you use BMW insect remover to soften and wash off insects and stubborn dirt on painted parts prior to washing the vehicle.
To prevent stains, do not wash the vehicle immediately after it has been exposed to strong sunlight and do not wash it in the sun.
Make sure that the vehicle is washed frequently, especially during the winter months.
To remove road salt, clean the motorcycle with cold water immediately after every trip.

WARNING

Wet brake discs and brake pads after vehicle wash, after riding through water and in rainy conditions
Diminished braking effect, risk of accident
- Apply the brakes in good time to allow the friction and heat to dry the brake discs and brake pads.◀

ATTENTION

Effect of road salt intensified by warm water
Corrosion
- Use only cold water to wash off road salt.◀

ATTENTION

Damage due to high water pressure from high pressure cleaners or steam cleaners
Corrosion or short circuit, damage to labels, seals, hydraulic brake system, electrical system and the motorcycle seat

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

Cleaning easily damaged components

Plastics

ATTENTION

Use of unsuitable cleaning agents

Damage to plastic surfaces

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

Body panels

Clean the trim panels with water and BMW plastic care emulsion.

Windscreens and lenses made of plastic

Clean off dirt and insects with a soft sponge and plenty of water.

NOTICE

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

Chrome

Use plenty of water and BMW shampoo to clean chrome, particularly if it has been exposed to road salt. Use chrome polish for additional treatment.

Radiator

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

ATTENTION

Bending of radiator fins

Damage to radiator fins

- 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.◀

Paint care

Washing the vehicle regularly will help counteract the long-term effects of substances that 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. We recommend BMW vehicle polish or BMW paint cleaner for this purpose.
Marks on the paintwork are particularly easy to see after the motorcycle has been washed. Remove stains of this kind immediately, using cleaning-grade benzene or petroleum spirit on a clean cloth or ball of cotton wool. BMW Motorrad recommends BMW tar remover for removing specks of tar. Remember to wax the parts treated in this way.

Protective wax coating

BMW Motorrad recommends applying only BMW car wax or products containing carnauba wax or synthetic wax.
It is time to rewax the paintwork when water "puddles" on the surface, instead of forming beads.

Laying up the motorcycle

- Clean the motorcycle.
- Fill the motorcycle's fuel tank with fuel.
- Removing battery (➠ 150).
- Spray the brake and clutch lever pivots and the main and side stand pivots with a suitable lubricant.
- Coat bright metal and chrome-plated parts with an acid-free grease (e.g. Vaseline).
- Park the motorcycle in a dry room so that no load applies to either wheel (preferably using the front-wheel and rear-wheel stand available from BMW Motorrad).

Restoring motorcycle to use

- Remove the protective wax coating.
- Clean the motorcycle.
- Installing battery (➠ 150).
- Comply with checklist (➠ 100).

Technical data

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Engine oil 174
Engine 175
Clutch 176
Transmission 176
Rear-wheel drive..... 177
Frame 177
Chassis and suspension 178
Brakes 178
Wheels and tyres 179
Electrical system..... 181
Anti-theft alarm 182
Dimensions 183
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Troubleshooting chart

The engine does not start.

Possible cause	Rectification
Side stand is extended	Retract the side stand.
Gear engaged and clutch not disengaged	Select neutral or pull the clutch lever.
No fuel in tank	Refuelling (➠ 107).
Battery flat	Recharge the battery.
Overheating protection for starter motor has been activated. Starter motor can only be operated for a limited period of time.	Allow the starter motor to cool down for approx. 1 minute before using it again.

Screw connections

Front wheel	Value	Valid
Front brake caliper to wheel carrier		
M8 x 30 - 10.9	30 Nm	
Clamping screw for quick-release axle to wheel carrier		
M8 x 30	19 Nm	
Quick-release axle in threaded bush (wheel carrier)		
M24 x 1.5	50 Nm	

Rear wheel	Value	Valid
Rear wheel to wheel flange		
M10 x 1.25 x 40	**Tightening sequence: tighten in diagonally opposite sequence**	
	60 Nm	

Fuel

Recommended fuel grade	Super unleaded (max. 10 % ethanol, E10) 95 ROZ/RON 89 AKI
Usable fuel capacity	approx. 26.5 l
Reserve fuel	approx. 4 l
Fuel consumption	approx. 5.7 l/100 km, according to WMTC
– with reduction of power[OE]	approx. 5.9 l/100 km, according to WMTC

Engine oil

Engine oil, capacity	approx. 4.5 l, with filter change
Specification	SAE 5W-40, API SL / JASO MA2, Additives (e.g. molybdenum-based) are not permissible because they can attack coated components of the engine, BMW Motorrad recommends BMW Motorrad ADVANTEC Ultimate oil.

BMW recommends ADVANTEC ORIGINAL BMW ENGINE OIL

Engine

Location of engine number	Above oil filler neck
Engine type	K48
Engine design	6-cylinder, four-stroke in-line engine arranged across the direction of travel, featuring four valves per cylinder, two overhead camshafts; liquid cooling, electronic fuel injection, integrated six-speed cassette gearbox, dry-sump lubrication.
Displacement	1649 cm^3
Cylinder bore	72.0 mm
Piston stroke	67.5 mm
Compression ratio	12.2:1
Nominal output	118 kW, - at engine speed: 7750 min^{-1}
– with reduction of power^{OE}	79 kW, - at engine speed: 7750 min^{-1}
Torque	175 Nm, - at engine speed: 5250 min^{-1}
– with reduction of power^{OE}	150 Nm, - at engine speed: 4750 min^{-1}
Maximum engine speed	max 8500 min^{-1}
Idle speed	$900^{\pm 50}$ min^{-1}, Engine at regular operating temperature
Exhaust emissions standard	Euro 4

Clutch

Clutch type	Multi-disc oil bath

Transmission

Gearbox type	Claw-shift 6-speed gearbox with helical gearing
Gearbox transmission ratios	1.617, Primary transmission ratio 2.230, 1st gear 1.641, 2nd gear 1.319, 3rd gear 1.101, 4th gear 0.926, 5th gear 0.788, 6th gear 0.913 (power pack 1.258 K), Transmission output ratio

Rear-wheel drive

Type of final drive	Shaft drive with bevel gears
Type of rear suspension	Cast-aluminium single swinging arm with BMW Motorrad Paralever
Number of teeth in bevel gears (gear ratio)	2.750 (33:12)

Frame

Frame type	Aluminium composite bridge frame, engine also load bearing
Type plate location	Wheel carrier, front top right
Position of the Vehicle Identification Number	Rear part of the main frame above the swinging arm, pointing in the direction of travel

Chassis and suspension

Front wheel	
Type of front suspension	BMW Motorrad Duolever
Design of front wheel suspension	Central suspension strut with electrically adjustable damping action.
Spring travel, front	115 mm, at wheel
Rear wheel	
Type of rear suspension	Central spring strut with coil spring, adjustable rebound stage damping and spring preload
Spring travel, rear	135 mm, At wheel

Brakes

Front wheel	
Type of front brake	Hydraulically operated twin disc brake with 4-piston fixed calipers and floating brake discs
Brake-pad material, front	Sintered metal
Brake disc thickness, front	5.0 mm, When new min 4.5 mm, Wear limit
Play of brake controls (Front brake)	2.3...2.7 mm

Rear wheel	
Type of rear brake	Hydraulically operated disc brake with 2-piston floating caliper and fixed disc
Brake-pad material, rear	Organic material
Brake disc thickness, rear	5.5 mm, When new min 4.9 mm, Wear limit
Blow-by clearance of the footbrake lever	min 1 mm, Measuring point between piston and pushrod

Wheels and tyres

Recommended tyre sets	An overview of currently approved tyres is available from your authorised BMW Motorrad Retailer or on the Internet at bmw-motorrad.com.
Speed category, front/rear tyres	W, required at least: 270 km/h
Front wheel	
Front wheel type	Aluminium casting
Front wheel rim size	3.50" x 17"
Tyre designation, front	120/70 ZR 17
Load index, front tyre	min. 58
Permissible front-wheel imbalance	max 5 g

Rear wheel	
Rear-wheel type	Aluminium casting
Rear wheel rim size	6.00" x 17"
Tyre designation, rear	190/55 ZR 17
Load index, rear tyre	75
Permissible rear-wheel imbalance	max 45 g
Tyre pressure	
Tyre pressure, front	2.9 bar, One-up and two-up mode with load; with cold tyres
Tyre pressure, rear	2.9 bar, One-up and two-up mode with load; with cold tyres

Electrical system

Electrical rating of on-board sockets	max 10 A, All sockets in total
Battery	
Battery type	AGM
Battery rated voltage	12 V
Battery rated capacity	16 Ah
Spark plugs	
Spark plugs, manufacturer and designation	NGK LMAR8AI-8
Electrode gap of spark plug	$0.8^{\pm 0.1}$ mm, When new 1 mm, Wear limit
Light source	
Bulb for high-beam headlight	H7 12 V 55 W
Bulbs for the low-beam headlight	Xenon D1S 12 V 35 W
Bulb for parking light	LED ring light
Bulb for tail light/brake light	LED
Bulbs for flashing turn indicators, front	LED
Bulbs for flashing turn indicators, rear	LED
Light source for the number plate light	W5W / 12 V / 5 W

Fuses	
Fuse carrier 1	40 A, Main fuse
Fuse carrier 2	7.5 A, Top slot: audio system 7.5 A, Bottom slot: alarm system, central locking system

Anti-theft alarm

Anti-theft alarm	
Activation time on arming	approx. 30 s
Alarm duration	approx. 26 s
Activation time between two alarms	15 s
Battery type	CR 123 A
Remote control	
Range of the remote control	approx. 10 m
Signal frequency	20 kHz, Broadband
Transmission frequency	433 MHz
Battery type and battery rated voltage (For remote control)	CR 1632 Lithium 3 V

Dimensions

Length of motorcycle	2489 mm, over topcase
Height of motorcycle	1475 mm, over windscreen at DIN unladen weight
Width of motorcycle	1000 mm, with mirrors
Front-seat height	750 mm, Without rider
– with seat, high [OE]	780 mm, Without rider
– with motorcycle seat, extra high [OE]	810 mm, Without rider
Rider's inside-leg arc, heel to heel	1720 mm, Without rider
– with seat, high [OE]	1770 mm, Without rider
– with motorcycle seat, extra high [OE]	1830 mm, Without rider

Weights

Vehicle kerb weight	350 kg, DIN unladen weight with case, roadworthy, 90 % refuelled, without OE
Wheel load, front, at unladen weight	166 kg
Permissible wheel load, front	max 212 kg
Wheel load, rear, at unladen weight	184 kg
Permissible wheel load, rear	max 368 kg
Permissible gross weight	560 kg
Maximum payload	210 kg

Riding specifications

Top speed	>200 km/h

Service

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BMW Motorrad Service

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

You can locate your nearest authorised BMW Motorrad dealership by visiting our website: **bmw-motorrad.com**

WARNING

Maintenance and repair work not in compliance with correct procedure

Risk of accident due to consequential damage

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

In order to help ensure that your BMW is always in optimum condition, BMW Motorrad recommends compliance with the maintenance intervals specified for your motorcycle. Have all maintenance and repair work that is carried out confirmed in the "Service" chapter in this manual. For generous treatment of claims submitted after the warranty period has expired, evidence of regular maintenance is essential.

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

BMW Motorrad Mobility services

As owner of a new BMW motorcycle, in circumstances in which assistance is required you can benefit from the protection afforded by the various BMW Motorrad mobility services (e.g. Mobile Service, breakdown service, vehicle recovery service). Your authorised BMW Motorrad dealer will be happy provide information about the mobility services available to you.

Maintenance work

BMW Pre-delivery Check

Your authorised BMW Motorrad dealer conducts the BMW predelivery check before handing over the vehicle to you.

BMW Running-in Check

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

BMW Service

The BMW 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 dealer 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 scheduled 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 on the multifunction display reminds you of the approaching service appointment approximately one month or 1000 km prior to reaching the entered values.

To find out more about service go to:
bmw-motorrad.com/service

The following maintenance schedule lists the scopes of maintenance work required for your vehicle:

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

Maintenance schedule

1 BMW Running-in check
2 BMW Service standard scope
3 Engine-oil change, with filter
4 Replace air filter element
5 Check valve clearance
6 Replace all spark plugs
7 Check the bearing for deflection on the rear wheel swinging arm
8 Oil change in bevel gears rear
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

Confirmation of maintenance work

BMW Motorrad Service, standard scope

The activities in the BMW Motorrad Service standard scope are listed below. The actual scope of maintenance work for your vehicle may differ.

– Performing vehicle test with BMW Motorrad diagnostic system
– Draining the condensate hose
– Visually inspecting brake pipes, brake hoses and connections
– Checking front brake pads and brake discs for wear
– Checking the brake fluid level of the front wheel brake
– Checking rear brake pads and brake disc for wear
– Checking brake-fluid level, rear brakes
– Checking the clutch system
– Checking coolant level
– Checking tyre pressures and tread depth
– Checking ease of movement of side stand
– Checking ease of movement of centre stand
– Checking lights and signalling equipment
– Function test, engine start suppression
– Final inspection and check for road safety
– Setting service-due date and service countdown distance
– Checking battery charge state
– Confirm BMW service in on-board literature

BMW Pre-delivery Check

Completed

on_____

Stamp, signature

BMW Running-in Check

Completed

on_____

Odometer reading_____

Next service
at the latest
on_____
or, if reached beforehand
Odometer reading_____

Stamp, signature

BMW Service

Completed

on_____

Odometer reading_____

Next service
at the latest
on_____
or, if reached beforehand
Odometer reading_____

_____
Stamp, signature

Item	Yes	No
BMW Motorrad Service, standard scope	☐	☐
Oil change, engine, with filter	☐	☐
Renewing air cleaner insert	☐	☐
Checking valve clearance	☐	☐
Renewing all spark plugs	☐	☐
Check bearing for deflection at rear wheel swinging arm	☐	☐
Oil change in rear bevel gears	☐	☐
Change brake fluid in entire system	☐	☐

Notes

BMW Service

Completed

on_____

Odometer reading_____

Next service
at the latest
on_____
or, if reached beforehand
Odometer reading_____

_____
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Oil change in rear bevel gears	☐	☐
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BMW Service

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Change brake fluid in entire system	☐	☐

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BMW Service

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BMW Service

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Next service

at the latest

on_____

or, if reached beforehand

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BMW Service

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BMW Service

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on_____

or, if reached beforehand

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Checking valve clearance	☐	☐
Renewing all spark plugs	☐	☐
Check bearing for deflection at rear wheel swinging arm	☐	☐
Oil change in rear bevel gears	☐	☐
Change brake fluid in entire system	☐	☐

Notes

Confirmation of service

The table is intended as a record of maintenance and repair work, the installation of optional accessories and, if appropriate, special campaign (recall) work.

Item	Odometer reading	Date

Item	Odometer reading	Date

Appendix

Certificate for Electronic Immobiliser 208

Certificate for Remote Control 210

Certificate for Keyless Ride 214

Certificate for Tyre Pressure Control (RDC) 216

FCC Approval

Ring aerial in the ignition switch



To verify the authorization of the ignition key, the electronic immobilizer exchanges information with the ignition key via the ring aerial.

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

(1) This device may not cause harmful interference, and

(2) this device must accept any interference received, including interference that may cause undesired operation.

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

Approbation de la FCC

Antenne annulaire présente dans le commutateur d'allumage



Pour vérifier l'autorisation de la clé de contact, le système d'immobilisation électronique échange des informations avec la clé de contact via l'antenne annulaire.
Le présent dispositif est conforme à la partie 15 des règles de la FCC. Son utilisation est soumise aux deux conditions suivantes :

(1) Le dispositif ne doit pas produire d'interférences nuisibles, et
(2) le dispositif doit pouvoir accepter toutes les interférences extérieures, y compris celles qui pourraient provoquer une activation inopportune.

Toute modification qui n'aurait pas été approuvée expressément par l'organisme responsable de l'homologation peut annuler l'autorisation accordée à l'utilisateur pour utiliser le dispositif. ◀

Certifications

Remote Control for central locking system



Česky
Meta System S.p.A. tímto prohlašuje, že tento PF240009 je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 1999/5/ES.

Dansk
Undertegnede Meta System S.p.A. erklærer herved, at følgende udstyr PF240009 overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF.

Deutsch
Hiermit erklärt Meta System S.p.A., dass sich das Gerät PF240009 in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 1999/5/EG befindet.

Eesti
Käesolevaga kinnitab Meta System S.p.A. seadme PF240009 vastavust direktiivi 1999/5/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.

English
Hereby, Meta System S.p.A., declares that this PF240009 is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

Español
Por medio de la presente Meta System S.p.A. declara que el PF240009 cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE.

Certifications

Ελληνική
ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ Meta System S.p.A. ΔΗΛΩΝΕΙ ΟΤΙ PF240009 ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/ΕΚ.

Français
Par la présente Meta System S.p.A. déclare que l'appareil PF240009 est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE.

Italiano
Con la presente Meta System S.p.A. dichiara che questo PF240009 è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.

Latviski
Ar šo Meta System S.p.A. deklarē, ka PF240009 atbilst Direktīvas 1999/5/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.

Lietuvių
Šiuo Meta System S.p.A. deklaruoja, kad šis PF240009 atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.

Nederlands
Hierbij verklaart Meta System S.p.A. dat het toestel PF240009 in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG.

Malti
Hawnhekk, Meta System S.p.A., jiddikjara li dan PF240009 jikkonforma mal-ħtiġijiet essenzjali u ma provvedimenti oħrajn relevanti li hemm fid-Dirrettiva 1999/5/EC.

Magyar
Alulírott, Meta System S.p.A. nyilatkozom, hogy a PF240009 megfelel a vonatkozó alapvetõ követelményeknek és az 1999/5/EC irányelv egyéb elõírásainak.

Polski
Niniejszym Meta System S.p.A. oświadcza, że PF240009 jest zgodny z zasadniczymi wymogami oraz pozostałymi stosownymi postanowieniami Dyrektywy 1999/5/EC.

Português
Meta System S.p.A. declara que este PF240009 está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.

Certifications

Slovensko
Meta System S.p.A. izjavlja, da je ta PF240009 v skladu z bistvenimi zahtevami in ostalimi relevantnimi določili direktive 1999/5/ES.

Slovensky
Meta System S.p.A. týmto vyhlasuje, že PF240009 spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 1999/5/ES.

Suomi
Meta System S.p.A. vakuuttaa täten että PF240009 tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.

Svenska
Härmed intygar Meta System S.p.A. att denna PF240009 står I överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.

Íslenska
Hér með lýsir Meta System S.p.A. yfir því að PF240009 er í samræmi við grunnkröfur og aðrar kröfur, sem gerðar eru í tilskipun 1999/5/EC.

Norsk
Meta System S.p.A. erklærer herved at utstyret PF240009 er i samsvar med de grunnleggende krav og øvrige relevante krav i direktiv 1999/5/EF.

USA, Canada

Product name: TX BMW MR
FCC ID: P3O98400
IC:4429A - TXBMWMR

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.



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

Declaration Of Conformity

R&TTE Declaration Of Conformity (DoC)

CE 0470

We: **Meta System S.p.A.**

with the address: Via Majakovskij 10 b/c/d/e
42124 Reggio Emilia –Italy

Declare

Under own responsibility that the product:

TX BMW MR

To which this declaration relates is in conformity with the essential requirements and other relevant requirements of the R&TTE Directive (1999/5/EC).
This product is in conformity with the following standards:

Health & Safety (art.3.1)	EN 60950-1
EMC (art.3.2)	ETSI EN 301 489-1/-3
Spectrum	ETSI EN 300 220 - 2
Human exposure	EN 62311

According to Directive 1999/5/CE

Reggio Emilia , 14/07/2010

Technical Director
Lasagni Cesare



Certifications

BMW Keyless Ride ID Device



USA, Canada

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

Canada:
Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

USA:
This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

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

Declaration Of Conformity

We declare under our responsibility that the product

BMW Keyless Ride ID Device (Model: HUF5750)

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

1. Health and safety requirements contained in article 3 (1) a)
   - EN 60950-1:2006+A11:2009+A1:2010+A12:2011; Information technology equipment- Safety
2. Protection requirements with respect to electromagnetic compatibility article 3 (1) b)
   - EN 301 489-1 (V1 .9.2, 09/2011), Electromagnetic compatibility and radio spectrum matters (ERM); Electromagnetic compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements
   - EN 301 489-3 (V1.4.1, 08/2002) Electromagnetic compatibility and radio spectrum matters (ERM); Electromagnetic compatibility (EMC) standard for radio equipment and services; Part 3: Specific conditions for short range devices (SRD) operating on frequencies between 9 kHz and 40 GHz
3. Means of the efficient use of the radio frequency spectrum article 3 (2)
   - EN 300 220-1 & -2 (V2.4.1, 05/2012), electromagnetic compatibility and radio spectrum matters (ERM); Short range devices (SRD); Radio equipment tobe used in the 25 MHz to 1000 MHz frequency range with power leveis ranging up to 500 mW; Part 1: Technical characteristics and test methods. Part 2: Harmonized EN covering essential requirements under article 3.2 ofthe R&TIE directive

The product is labeted wilh the CE marking: CE

Velbert, October 15th, 2013

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

Certification Tire Pressure Control (TPC)

FCC ID: MRXBC54MA4 IC: 2546A-BC54MA4	FCC ID: MRXBC5A4 IC: 2546A-BC5A4

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

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

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

(1) l'appareil ne doit pas produire de brouillage, et
(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

WARNING: Changes or modifications not expressively approved by the party responsible for compliance could void the user's authority to operate the equipment. The term “IC:” before the radio certification number only signifies that Industry Canada technical specifications were met.

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Details described or illustrated in this booklet may differ from the vehicle's actual specification as purchased, the accessories fitted or the national-market specification. No claims will be entertained as a result of such discrepancies.
Dimensions, weights, fuel consumption and performance data are quoted to the customary tolerances.
The right to modify designs, equipment and accessories is reserved.
Errors and omissions excepted.

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Original rider's manual, printed in Germany.

Important data for refuelling:

Fuel	
Recommended fuel grade	Super unleaded (max. 10 % ethanol, E10) 95 ROZ/RON 89 AKI
Usable fuel capacity	approx. 26.5 l
Reserve fuel	approx. 4 l
Tyre pressure	
Tyre pressure, front	2.9 bar, One-up and two-up mode with load; with cold tyres
Tyre pressure, rear	2.9 bar, One-up and two-up mode with load; with cold tyres

You can find further information on all aspects of your vehicle at:
bmw-motorrad.com

BMW recommends ADVANTEC ORIGINAL BMW ENGINE OIL

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