



BMW Motorrad



Rider's Manual (US Model)

R 1200 GS

Motorcycle/Retailer Data

Motorcycle Data

Model

Vehicle identification number

Color number

Initial registration

License plate

Retailer Data

Contact in Service

Ms./Mr.

Phone number

Retailer's address/phone number (company stamp)

Welcome to BMW

Congratulations on choosing a motorcycle from BMW Motorrad and welcome to the community of BMW motorcycle owners and riders. Familiarize yourself with your new motorcycle so that you can ride it safely and confidently in all highway 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 get the most benefit from your BMW's advanced technical features.

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

Documentation confirming performance of scheduled maintenance is a precondition for generous handling of out-of-warranty claims and goodwill warranty treatment.

Should you want to sell your BMW one day, please also remember to turn over the Ride's Manual to the new owner. It is an important part of your motorcycle.

Suggestions and complaints

If you have any questions concerning your motorcycle, your authorized BMW Motorrad retailer is always happy to provide advice and assistance.

We wish you many miles of safe and enjoyable riding on your BMW

BMW Motorrad.

01 40 8 406 477



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Overview

This Rider's Manual has been designed to provide quick and efficient orientation. The quickest way for you to find information on specific topics is to consult the comprehensive index at the back of the manual. If you would like to start with a quick overview of your motorcycle, this information has been provided in chapter 2. All maintenance and repair work carried out on your motorcycle will be documented in Chapter 12. Documentation confirming performance of scheduled maintenance is a precondition for generous handling of out-of-warranty claims and goodwill warranty treatment.

When the time comes to sell your BMW, remember to hand over this Rider's Manual; it is an important part of the motorcycle.

Abbreviations and symbols



CAUTION Hazard with low risk. Failure to avoid this hazard can result in minor or moderate injury.



WARNING Hazard with moderate risk. Failure to avoid this hazard can result in death or serious injury.



DANGER Hazard with high risk. Failure to avoid this hazard results in death or serious injury.



ATTENTION Special instructions and precautionary measures. Non-compliance can cause damage to the vehicle or accessories and warranty claims may be denied as a result.



NOTICE Special information on operating and inspecting your motorcycle as well

as maintenance and adjustment procedures.



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 accessory or equipment-dependent information.



Tightening torque.



Technical data.

NV

National-market version.

OE	Optional extra. BMW Motorrad optional extras are already completely installed during motorcycle production.
OA	Optional accessory. BMW Motorrad optional accessories can be purchased and installed at your authorized BMW Motorrad retailer.
ABS	Anti-Lock Brake System.
ASC	Automatic Stability Control.
D-ESA	Electronic chassis and suspension adjustment.
DTC	Dynamic Traction Control (optional equipment only in combination with Pro riding modes).

DWA	Anti-theft alarm.
EWS	Electronic immobilizer.
TPC	Tire Pressure Control (TPC).

Equipment

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

If your motorcycle comes with equipment not described here, you can find the descriptions in a separate manual.

Technical data

All dimensions, weights and outputs in the Rider's Manual relate to the German DIN standards and comply with their tolerance specifications. Versions for individual countries may differ.

Notice concerning current status

The outstanding levels of safety and quality furnished by every BMW motorcycle are the result of ongoing advanced development focusing on continuous improvement in design and engineering as well as equipment and accessories. For this reason, some aspects of your motorcycle may vary from the descriptions in this Rider's Manual. In addition, BMW Motorrad cannot guarantee the total absence of errors. For this reason BMW is unable to recognize any claims stemming

from the information, illustrations and descriptions in this manual.

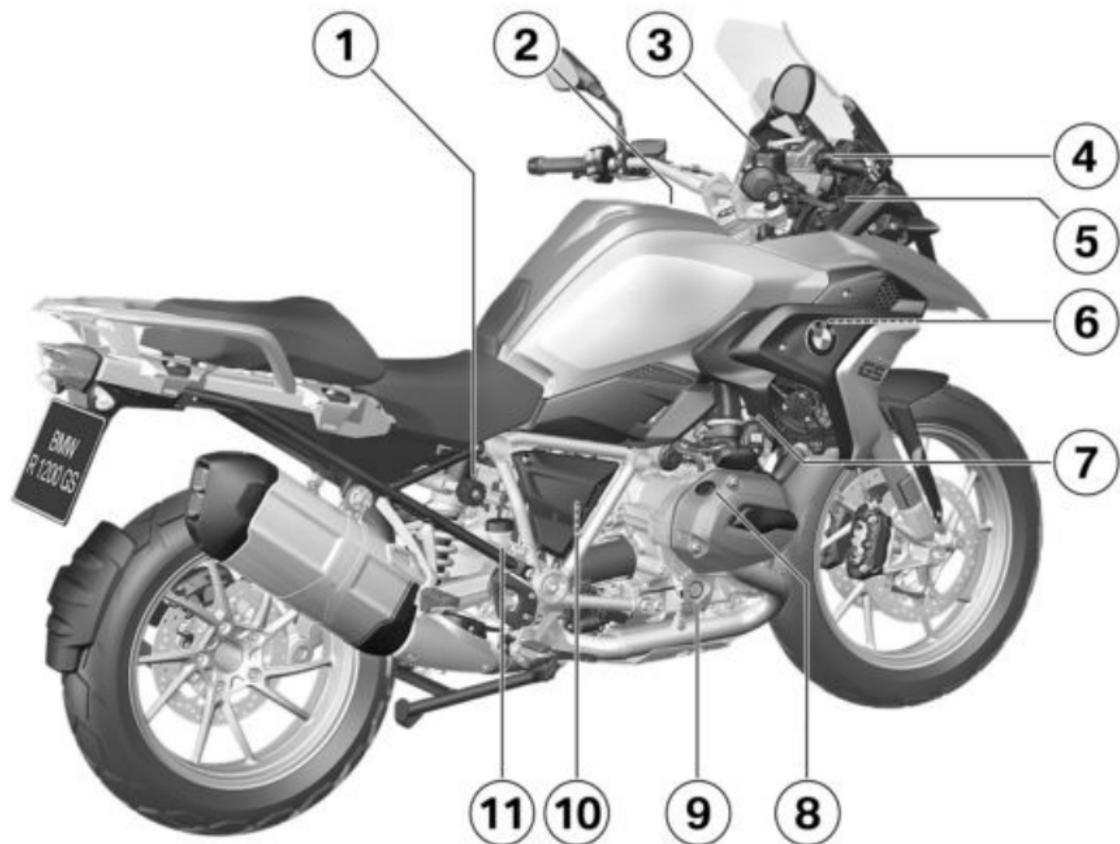
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General view, left side

- 1 Fuel filler opening
( 111)
- 2 Seat lock ( 86)
- 3 Adjuster for rear damping (at the bottom on the spring strut) ( 94)

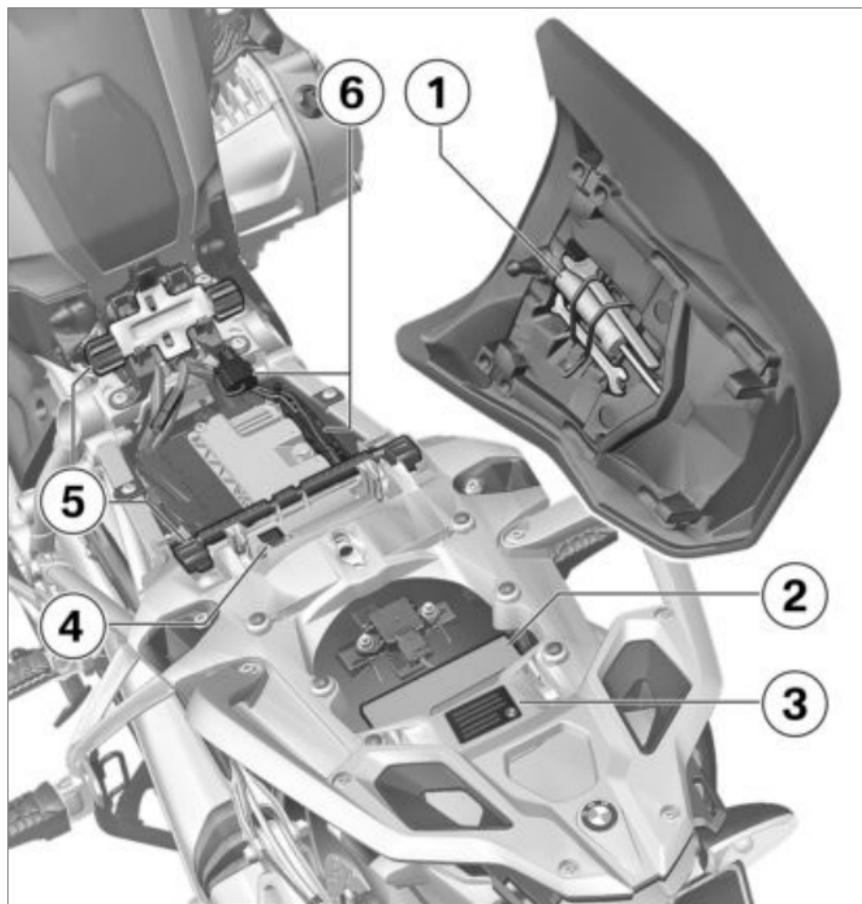


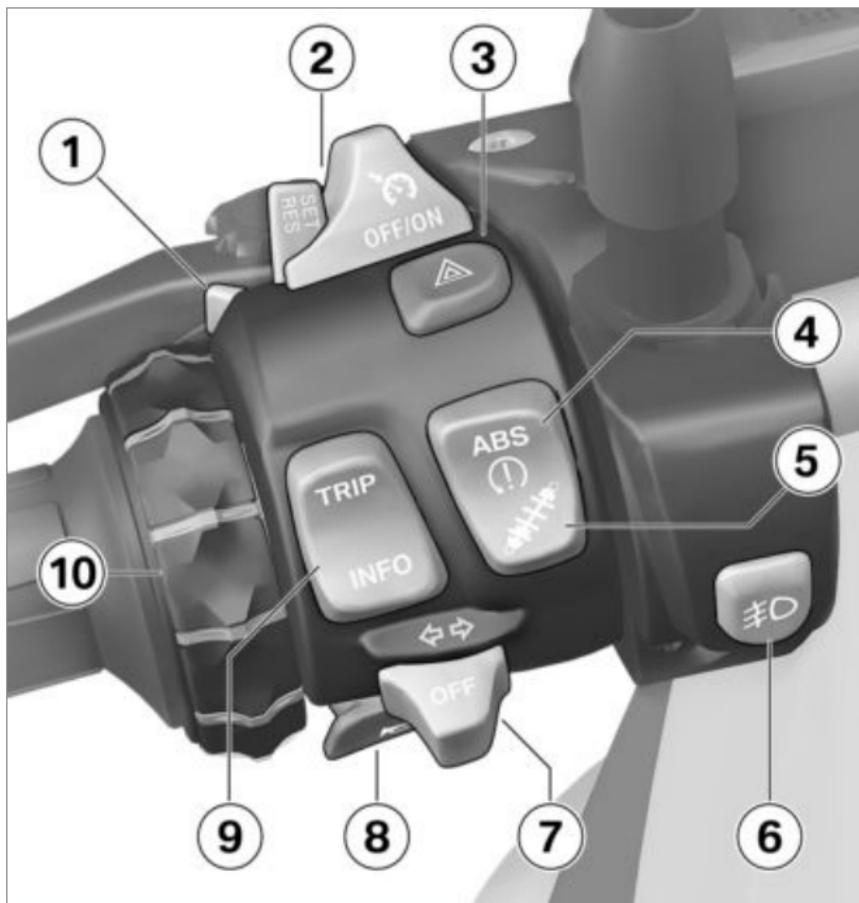
General view, right side

- 1 – without Dynamic ESA^{OE}
Adjuster for spring preload,
rear (➡ 93).
- 2 Air cleaner (under center
fairing panel) (➡ 149)
- 3 Brake-fluid reservoir, front
(➡ 137)
- 4 Height adjuster for wind-
shield (➡ 91)
- 5 Power socket (➡ 166)
- 6 Vehicle identification num-
ber (on the steering head)
Type plate (on frame at
front right)
- 7 Coolant level indicator
(➡ 139)
Coolant tank (➡ 140)
- 8 Oil fill location (➡ 135)
- 9 Engine oil level indicator
(➡ 134)
- 10 Behind the side panel:
Battery (➡ 156)
Positive battery connection
point (➡ 155)
Diagnostic connector
(➡ 162)
- 11 Brake-fluid reservoir, rear
(➡ 138)

Underneath seat

- 1 Standard tool kit (►► 132)
- 2 Rider's Manual (US Model)
- 3 Tire inflation pressure table
- 4 Load capacity table
- 5 Adjuster for the rider's seat height (►► 87)
- 6 Fuses (►► 160)





Multifunction switch, left

- 1 Headlight flasher and high-beam headlight (➡ 56)
- 2 – with cruise control^{OE}
Cruise-control system (➡ 79).
- 3 Hazard warning lights system (➡ 58)
- 4 ABS (➡ 66)
ASC (➡ 67)
– with riding modes Pro^{OE}
DTC (➡ 68)
- 5 – with Dynamic ESA^{OE}
Dynamic ESA adjustment options (➡ 69)
- 6 – with LED auxiliary headlight^{OA}
LED auxiliary driving lamp (➡ 57).
- 7 Turn indicators (➡ 58)
- 8 Horn
- 9 Multifunction display (➡ 59)

10 – with preparation for navigation system^{OE}

Operating the navigation system (▣▣▣▣▶ 177)

Multi-Controller

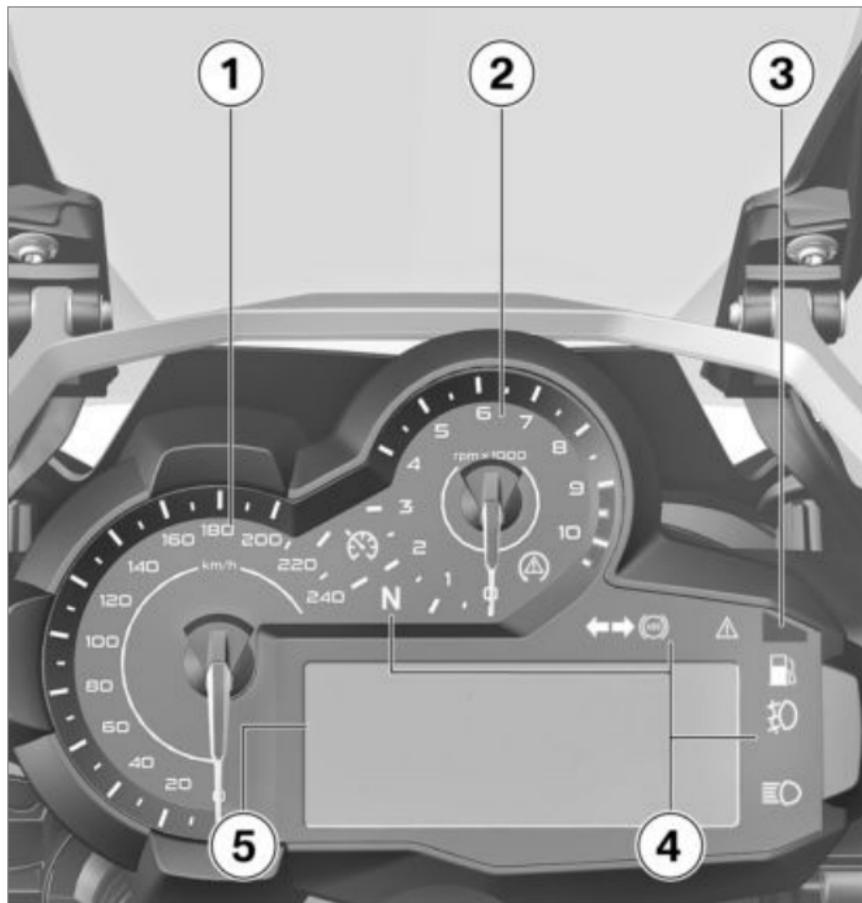


Multifunction switch, right

- 1 – with heated grips^{OE}
Heated handlebar grips (➡ 85).
- 2 Riding mode (➡ 72)
- 3 Emergency on/off switch
(kill switch) (➡ 56)
- 4 Starter button
Starting engine (➡ 101).

Instrument panel

- 1 Speedometer
- 2 Tachometer
- 3 Photosensor (for adjusting brightness of instrument lighting)
 - with anti-theft alarm system (DWA)^{OE}
 - Alarm system LED
 - Alarm signal (➡ 83)
 - with Keyless Ride^{OE}
 - Indicator light for radio-operated key
 - Ignition with Keyless Ride (➡ 53).
- 4 Indicator and warning lights (➡ 20)
- 5 Multifunction display (➡ 22)



Displays

Indicator and warning lights	20
Multifunction display	22
Warning symbols in the display panel	23
Warning lights	24

Indicator and warning lights

- 1 – with cruise control^{OE}
Cruise-control system
([►► 79](#)).
- 2 Neutral position (idling)
- 3 ASC ([►► 41](#))
– with riding modes Pro^{OE}
DTC ([►► 41](#))
- 4 Turn indicators
- 5 ABS ([►► 40](#))
- 6 General warning light, in
conjunction with warn-
ing symbols on display
([►► 24](#))
- 7 – with anti-theft alarm sys-
tem (DWA)^{OE}
Alarm signal ([►► 83](#))
– with Keyless Ride^{OE}
Indicator light for radio-
operated key
Ignition with Keyless Ride
([►► 53](#)).

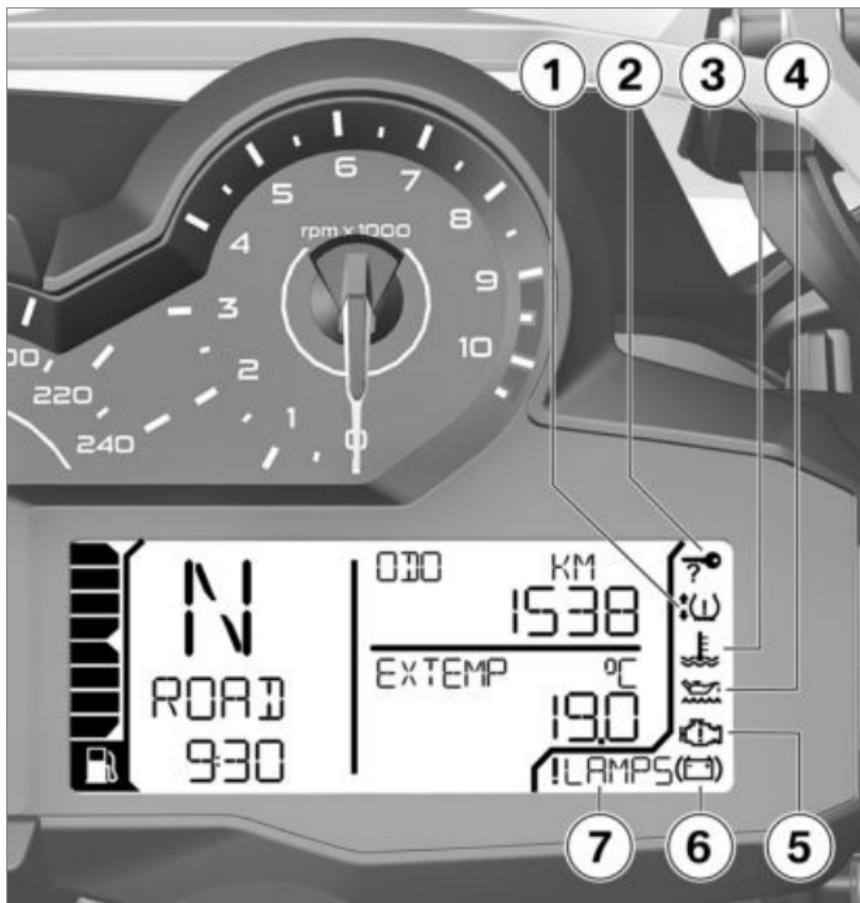


- 8** High-beam headlamp
( 56)
- 9** – with LED auxiliary head-
light^{OA}
LED auxiliary driving lamp
( 57).
- 10** Fuel reserve ( 44)

Multifunction display

- 1 Fuel fill level indicator
- 2 Uphshift recommendation (►► 45)
- 3 Gear indicator display, "N" indicates "neutral".
- 4 – with Hill Start Control^{OE}
Using Hill Start Control (►► 81).
- 5 Odometer (►► 59)
- 6 Service display (maintenance interval) (►► 209)
- 7 Warning symbols (►► 24)
- 8 Onboard computer
– with Dynamic ESA^{OE}
Dynamic ESA adjustment options (►► 69)
- 9 – with heated grips^{OE}
Heated handlebar grips (►► 85).
- 10 Riding mode (►► 72)
- 11 Clock (►► 62)
- 12 Outside temperature warning (►► 31)





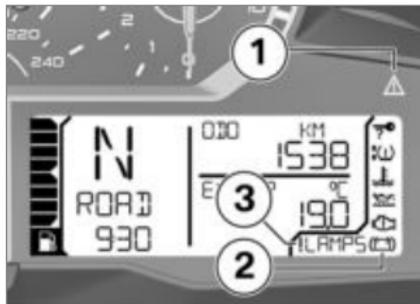
Warning symbols in the display panel

- 1 – with Tire Pressure Monitor (TPM)^{OE}
Tire pressure (→ 36)
- 2 EWS (→ 31)
- 3 Coolant temperature (→ 34)
- 4 Engine oil level (→ 33)
- 5 Electronic engine management (→ 34)
- 6 Vehicle voltage (→ 32)
- 7 Warnings (→ 24)

Warning lights

Displays

Warnings are displayed with appropriate warning lights.



Warnings for which no separate warning light is provided are signaled by the general warning light **1** and are accompanied by a warning symbol in area **2** or by a warning notice in area **3**. The universal warning light lights up in either yellow or red depending on the urgency of the warning. The universal warning light lights up for the most urgent warning.

You will find an overview of the potential warnings on the following pages.

Overview of warning indicators

Indicator and warning lights	Display text	Meaning
	 Ice crystal symbol is displayed.	Outside temperature warning (→ 31)
 General warning light lights up yellow.	 EWS warning symbol is displayed.	Electronic immobilizer is active (→ 31)
 General warning light lights up yellow.	 Key fob transmitter warning symbol is displayed.	Radio-operated key outside reception range (→ 32)
 General warning light lights up yellow.	!KEYLO is displayed.	Replace battery of radio-operated key (→ 32)
 General warning light shows red.	 Symbol for vehicle voltage is displayed.	Vehicle voltage too low (→ 32)
	 Oil can symbol is displayed.	Engine oil level too low (→ 33)
	OILLVL CHECK is displayed.	

Indicator and warning lights

Display text

Meaning

	General warning light shows red.	 Temperature symbol is displayed.	Coolant temperature too high (→ 34)
	General warning light lights up yellow.	 Engine symbol appears on the display.	Engine in emergency-operation mode (→ 34)
	General warning light flashes yellow.	 Engine symbol flashes.	Severe fault in the engine management system (→ 35)
	General warning light lights up yellow.	! LAMPF, ! LAMPR or ! LAMPS is displayed.	Light source defect (→ 35)
		! DWALO is displayed.	Anti-theft alarm battery low charge (→ 36)
	General warning light lights up yellow.	! DWA is displayed.	Anti-theft alarm system battery discharged (→ 36)

Indicator and warning lights	Display text	Meaning
 General warning light lights up yellow.	 Tire symbol with one or two arrows is displayed. The critical tire-inflation pressure also flashes.	Tire inflation pressure is at limit of approved range (→ 37)
 General warning light flashes red.	 Tire symbol with one or two arrows is displayed. The critical tire-inflation pressure also flashes.	Tire inflation pressure is outside approved range (→ 38)
 General warning light lights up yellow.	 The tire symbol with one or two arrows appears.	Sensor faulty or system fault (→ 38)
	"--" or "-- --" is indicated.	Transmission error (→ 39)
 General warning light lights up yellow.	! RDC is displayed.	Battery of tire-inflation pressure sensor weak (→ 39)

Indicator and warning lights

Display text

Meaning



ABS indicator light flashes.

ABS self-diagnosis not completed
(40)



ABS indicator light lights up.

ABS fault (40)



ABS indicator light lights up.

ABS deactivated (41)



ASC indicator and warning light flashes rapidly.

ASC intervention (41)



DTC indicator and warning light flashes rapidly.

DTC intervention (41)



ASC indicator and warning light flashes slowly.

ASC self-diagnosis not completed
(41)



DTC indicator and warning light flashes slowly.

DTC self-diagnosis not completed
(42)

Indicator and warning lights

Display text

Meaning

	ASC indicator and warning light lights up.		ASC switched off (▬▬▬ 42)
	DTC indicator and warning light lights up.		DTC switched off (▬▬▬ 42)
	ASC indicator and warning light lights up.		ASC fault (▬▬▬ 42)
	DTC indicator and warning light lights up.		DTC error (▬▬▬ 43)
	General warning light lights up yellow.	! D-ESA is displayed.	D-ESA fault (▬▬▬ 43)
	Low-fuel warning light lights up.		Fuel down to reserve (▬▬▬ 43)
	Stop symbol is displayed.		Hill Start Control active (▬▬▬ 44)

Indicator and warning lights

Display text

Meaning

	General warning light flashes yellow.	 Stop symbol flashes briefly.	Hill Start Control deactivated automatically (►►► 44)
	General warning light flashes yellow.	 Stop symbol flashes briefly.	Hill Start Control can not be activated (►►► 44)
		 Up arrow is displayed.	Upshift recommendation (►►► 45)
		 Gear indicator flashes.	Gear not programmed (►►► 45)
	General warning light flashes red.		Hazard warning lights system switched on (►►► 46)
	Turn signal indicator light flashes green.		
	General warning light lights up yellow.	SERVICE is displayed continuously.	Service date missed (►►► 46)

Outside temperature

Engine heat can lead to spurious readings of outside temperature when the motorcycle is stationary. When the effects of engine heat on the monitored temperature become excessive the display responds by temporarily reverting to "--" as the display reading.



In the case of outside temperatures below 37 °F (3 °C), risk of ice formation exists. The display automatically switches from any other mode to outside temperature reading **1**, when the temper-

ature drops below this threshold for the first time. The displayed value flashes.



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

WARNING

Risk of black ice, even above 37 °F (3 °C)

Accident hazard

- At a low outside temperature, icy conditions must be expected on bridges and in shady road areas. ◀

Outside temperature warning



Ice crystal symbol is displayed.

Possible cause:



The outside temperature measured on the motorcycle is less than:

Approx. 37 °F (Approx. 3 °C)

WARNING

Risk of black ice, even above 37 °F (3 °C)

Accident hazard

- At a low outside temperature, icy conditions must be expected on bridges and in shady road areas. ◀
- Think well ahead when driving.

Electronic immobilizer is active



General warning light lights up yellow.



EWS warning symbol is displayed.

Possible cause:

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

- Remove other motorcycle keys from the ignition key ring.
- Using emergency key.
- Have the defective key replaced, preferably by an authorized BMW Motorrad retailer.

Radio-operated key outside reception range

– with Keyless Ride^{OE}



General warning light lights up yellow.



Key fob transmitter warning symbol is displayed.

Possible cause:

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

- Check battery in radio-operated key.
 - with Keyless Ride^{OE}
- Replacing the battery of the key fob transmitter (▶▶▶ 55).
- Use reserve key for further driving.
 - with Keyless Ride^{OE}
- Battery of the key fob transmitter is empty or the key fob transmitter is lost (▶▶▶ 54).
- Should the warning symbol appear while driving, keep calm. Driving can be continued; the engine will not switch off.
- Have the defective radio-operated key replaced by an authorized BMW Motorrad retailer.

Replace battery of radio-operated key



General warning light lights up yellow.

! KEYLO is displayed.

Possible cause:

– with Keyless Ride^{OE}

The battery for the key fob transmitter is no longer charged to full capacity. Operation of the key fob transmitter is only ensured for a limited time.

- Replacing the battery of the key fob transmitter (▶▶▶ 55).

Vehicle voltage too low



General warning light shows red.



Symbol for vehicle voltage is displayed.

! WARNING

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

Accident hazard

- Do not continue riding.◀

The battery is not being charged. If the journey is continued, the vehicle electronics will discharge the battery.

NOTICE

If the 12 V battery is installed incorrectly, or if the terminals are swapped (e.g. when jump-starting), the fuse for the alternator regulator may blow. ◀

Possible cause:

Alternator or alternator drive faulty, battery faulty or fuse for alternator regulator blown.

- Have the malfunction corrected as soon as possible at an authorized service facility, preferably an authorized BMW Motorrad Retailer.

Oil level indicator



The oil level display **1** provides information on the oil level in the engine. This display can only be activated when the vehicle is stopped.

The conditions required for using the oil level display are as follows:

- Engine at normal operating temperature.
- Engine idling for at least ten seconds.
- Side stand retracted.
- Motorcycle standing vertically on level surface.

The readings mean:

OK: oil level correct.

CHECK: check oil level during next refueling stop.

---: no measurement possible (above-mentioned conditions not met).



If the oil level must be checked, symbol **2** is displayed, until the oil level is detected again as correct.

Engine oil level too low



Oil can symbol is displayed.

OILLVL CHECK is displayed.

Possible cause:

The electronic oil level sensor has detected that the engine's oil level is too low. At next refueling stop:

- Check engine oil level (▣▶ 134).
If oil level is too low:

- Topping up engine oil (▮▮▮ 135).
If the oil level is correct:
- Contact an authorized workshop, preferably an authorized BMW Motorrad retailer.

Coolant temperature too high



General warning light shows red.



Temperature symbol is displayed.



ATTENTION

Riding with overheated engine

Engine damage

- Be sure to observe the measures listed below.◀

Possible cause:

Coolant level is too low.

- Checking coolant level (▮▮▮ 139).

If coolant level is too low:

- Allow the engine to cool down.
- Topping up coolant (▮▮▮ 140).
- Have the coolant system checked at a specialist workshop, preferably by an authorized BMW Motorrad retailer.

Possible cause:

The coolant temperature is too high.

- If possible, continue driving in the part-load range to cool down the engine.

If the coolant temperature is frequently too high:

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

Engine in emergency-operation mode



General warning light lights up yellow.



Engine symbol appears on the display.



WARNING

Unusual handling when engine is in emergency operation mode

Accident hazard

- Adapt riding style: Avoid rapid acceleration and passing maneuvers.◀

Possible cause:

The engine control unit has diagnosed a fault which impairs the engine performance or throttle response. The engine is running in the emergency-operation mode. In exceptional cases, the engine stops and can no longer be started.

- Have the malfunction corrected as soon as possible at an authorized service facility,

preferably an authorized BMW Motorrad Retailer.

- » It is possible to continue riding, however the engine performance and engine speed range may be impaired and not function as normal.

Severe fault in the engine management system



General warning light flashes yellow.



Engine symbol flashes.



WARNING

Damage to the engine when it is in the emergency operating mode

Accident hazard

- Adapt riding style: Ride slowly, avoid rapid acceleration and passing maneuvers.
- If possible, have the motorcycle picked up and the malfunction

source eliminated by a specialized service facility, preferably an authorized BMW Motorrad Retailer. ◀

Possible cause:

The engine control unit has diagnosed a fault, which can lead to a severe secondary fault. The engine is in the emergency-operation mode.

- Continued driving is possible, however it is not recommended.
- Avoid high load and engine speed ranges if possible.
- Have the malfunction corrected as soon as possible at an authorized service facility, preferably an authorized BMW Motorrad Retailer.

Light source defect



General warning light lights up yellow.

! LAMP... is displayed:

- ! LAMPF: Low-beam headlight, high-beam headlight, parking lights or front turn indicator defective.
- ! LAMPF: Also: daytime light defective.
- ! LAMPBR: Brake light, taillight, turn indicator or license plate illumination defective.
- ! LAMPBS: Several bulbs defective.



WARNING

Overlooking the vehicle in traffic due to a defective light source on the vehicle

Safety risk

- Replace defective bulbs as soon as possible; it is best always to carry a complete set of spare bulbs on the motorcycle. ◀

Possible cause:

One or more bulbs are defective.

- Determine defective bulbs via visual inspection.
- Replacing low and high-beam light sources in headlight (▣▣▣▣ 151).
- Replacing light source for parking light (▣▣▣▣ 152).
- Replacing front and rear turn indicator light sources (▣▣▣▣ 153).
- Have rear LED light replaced (▣▣▣▣ 155).

Anti-theft alarm battery low charge

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

! DWALO is displayed.



NOTICE

This fault message is only shown for a short time immediately following the Pre-Ride-Check.◀

Possible cause:

The anti-theft alarm battery no longer has its full capacity. The operation of the anti-theft alarm system is only ensured for a limited time with the motorcycle battery disconnected.

- Contact an authorized service facility, preferably an authorized BMW Motorrad retailer.

Anti-theft alarm system battery discharged

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



General warning light lights up yellow.

! DWA is displayed.



NOTICE

This fault message is only shown for a short time immediately following the Pre-Ride-Check.◀

Possible cause:

The anti-theft alarm system battery is completely discharged. Operation of the anti-theft alarm system is no longer ensured when the motorcycle's battery is disconnected.

- Contact an authorized service facility, preferably an authorized BMW Motorrad retailer.

Tire pressure

– with Tire Pressure Monitor (TPM)^{OE}



The figure on the left side **1** indicates the front tire's inflation pressure, while the figure on the right **2** shows the inflation pressure in the rear tire. Immediately after switching on the ignition, "-- --" is displayed. The transfer of the tire pressure values does not begin until a speed of 18 mph (30 km/h) is exceeded for the first time. The displayed tire inflation pressures refer to a tire air temperature of 68 °F (20 °C).

 If the **3** symbol appears at the same time, the display is a warning. The critical tire-inflation pressure flashes.

 If the level concerned is borderline in terms of the permissible tolerance, the general warning light also shows yellow. If the monitored tire inflation pressure is outside the specified range the general warning light will flash in red.

For more detailed information about BMW Motorrad RDC/TPC, see page  126.

Tire inflation pressure is at limit of approved range

– with Tire Pressure Monitor (TPM)^{OE}

 General warning light lights up yellow.

 Tire symbol with one or two arrows is displayed. The critical tire-inflation pressure also flashes.

The up arrow indicates an inflation pressure problem on the front wheel. The down arrow indicates an inflation pressure problem on the rear wheel.

Possible cause:

The measured tire inflation pressure is in the limit area of the permissible tolerance.

- Correct tire inflation pressure in accordance with instructions on back of cover of Rider's Manual.



NOTICE

Before adjusting the tire pressure, please observe the information about temperature compensation and adjusting the tire pressure in the "Technology in detail" chapter: ◀

» Temperature compensation
( 127)

Tire inflation pressure is outside approved range

– with Tire Pressure Monitor (TPM)^{OE}



General warning light flashes red.



Tire symbol with one or two arrows is displayed.

The critical tire-inflation pressure also flashes.



WARNING

Tire inflation pressure is outside approved range.

Poorer handling characteristic of the motorcycle.

- Adapt your style of riding accordingly.◀

The up arrow indicates an inflation pressure problem on the front wheel. The down arrow

indicates an inflation pressure problem on the rear wheel.

Possible cause:

The measured tire inflation pressure is outside the approved tolerance range.

- Check tire for damage and suitability for continued use.

If it is still possible to drive with tire:

- Correct tire inflation pressure at the next opportunity.



NOTICE

The RDC/TPC warning message can be deactivated in the off-road mode.◀



NOTICE

Before adjusting the tire pressure, please observe the information about temperature compensation and adjusting the tire pressure in the "Technology in detail" chapter:◀

» Temperature compensation
( 127)

- Have the tire checked for damage at an authorized service facility, preferably an authorized BMW Motorrad retailer.

If you are unsure about the tire's suitability for continued riding:

- Do not continue riding.
- Contact roadside service.

Sensor faulty or system fault

– with Tire Pressure Monitor (TPM)^{OE}



General warning light lights up yellow.



The tire symbol with one or two arrows appears.

Possible cause:

Wheels without installed TPC/RDC sensors are mounted.

- Retrofit wheel set with TPC/RDC sensors.

Possible cause:

1 or 2 TCP/RDC sensors have failed or a system error has occurred.

- Have fault eliminated at a specialist service facility, preferably an authorized BMW Motorrad retailer.

Transmission error

– with Tire Pressure Monitor (TPM)^{OE}

"--" or "-- --" is indicated.

Possible cause:

The vehicle has not reached the minimum speed (➡ 126).



RDC/TPC sensor is not active

min 19 mph (min 30 km/h)
(The RDC/TPC sensor does not transmit a signal to the motorcycle until this minimum speed has been exceeded.)

- Observe the TPM display at higher speed.
-  Only when the general warning light also lights up is this a permanent fault.
In this case:
 - Have fault eliminated at a specialist service facility, preferably an authorized BMW Motorrad retailer.

Possible cause:

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

TPM control unit and the sensors.

- Observe the TPM display in different surroundings.



Only when the general warning light also lights up is this a permanent fault.

In this case:

- Have fault eliminated at a specialist service facility, preferably an authorized BMW Motorrad retailer.

Battery of tire-inflation pressure sensor weak

– with Tire Pressure Monitor (TPM)^{OE}



General warning light lights up yellow.

! RDC is displayed.

**NOTICE**

This fault message is only shown for a short time immediately following the Pre-Ride-Check. ◀

Possible cause:

The battery of the tire inflation pressure sensor no longer has its full capacity. The operation of the tire inflation pressure control is only ensured for a limited time.

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

ABS self-diagnosis not completed

ABS indicator light flashes.

Possible cause:



ABS self-diagnosis routine not completed

ABS is not available, as the self-diagnosis routine was not completed. (The motorcycle must reach a specified minimum speed before the system can check operation of the wheel speed sensors: 3 mph (5 km/h))

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

ABS fault

ABS indicator light lights up.

Possible cause:

– with riding modes Pro^{OE}
Rotational speed sensor has been damaged. The ABS Pro function is not available.

**ATTENTION****Damage to components**

Damage to sensors, for example, with the resultant malfunctions

- Do not carry along any objects under the rider's or passenger's seat.
- Secure vehicle tools. ◀
- Do not damage the rotational speed sensor.

Possible cause:

The ABS control unit has detected an error. The ABS function is not available.

- It remains possible to continue riding. Observe additional information on special conditions

that can lead to an ABS error message (➡ 119).

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

ABS deactivated



ABS indicator light lights up.

Possible cause:

The ABS system was deactivated by the rider.

- Switch on ABS function (➡ 67).

ASC intervention

– without riding modes Pro^{OE}



ASC indicator and warning light flashes rapidly.

ASC has detected instability at the rear wheel and responded by reducing the torque. The indicator and warning light flashes

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

DTC intervention

– with riding modes Pro^{OE}



DTC indicator and warning light flashes rapidly.

DTC has detected instability at the rear wheel and responded by reducing the torque. The indicator and warning light flashes longer than the DTC intervention lasts. This feature continues to furnish the rider with visual feedback confirming that the system has initiated active closed-loop intervention even after the critical situation has passed.

ASC self-diagnosis not completed

– without riding modes Pro^{OE}



ASC indicator and warning light flashes slowly.

Possible cause:



ASC self-diagnosis routine not completed

ASC is not available because the self-diagnosis routine was not completed. (The motorcycle must reach a specified minimum speed before the system can check operation of the wheel sensors: min 3 mph (min 5 km/h))

- Ride off slowly. The ASC indicator and warning light must go out after several meters. If the ASC indicator and warning light continues to flash:

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

DTC self-diagnosis not completed

– with riding modes Pro^{OE}

 DTC indicator and warning light flashes slowly.

Possible cause:



DTC self-diagnosis not completed

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

- Ride off slowly. It must be noted that the DTC function

is not available until the self-diagnosis has been completed.

ASC switched off

– without riding modes Pro^{OE}

 ASC indicator and warning light lights up.

Possible cause:

The rider has switched off the ASC system.

- without riding modes Pro^{OE}
- Activating ASC function (▣► 68).

DTC switched off

– with riding modes Pro^{OE}

 DTC indicator and warning light lights up.

Possible cause:

- The DTC system was deactivated by the rider.
- Switching on DTC (▣► 69).

ASC fault

– without riding modes Pro^{OE}

 ASC indicator and warning light lights up.

Possible cause:

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

- It remains possible to continue riding. Please be aware that ASC functionality is no longer available. Observe the additional information on situations that can lead to an ASC fault (▣► 122).
- Have the malfunction corrected as soon as possible at an authorized service facility, preferably an authorized BMW Motorrad Retailer.

DTC error

– with riding modes Pro^{OE}



DTC indicator and warning light lights up.

Possible cause:

The DTC control unit has detected an error.



ATTENTION

Damage to components

Damage to sensors, for example, with the resultant malfunctions

- Do not carry along any objects under the rider's or passenger's seat.
- Secure vehicle tools. ◀
- Do not damage the rotational speed sensor.
- It must be noted that the DTC function is not available at all or is restricted.
- It remains possible to continue riding. You should also observe the additional information on

situations that can lead to a DTC fault (▶▶▶ 122).

- Have the malfunction corrected as soon as possible at an authorized service facility, preferably an authorized BMW Motorrad Retailer.

D-ESA fault



General warning light lights up yellow.

! D-ESA is displayed.

Possible cause:

The D-ESA control unit has detected a fault. Damping action and/or the spring adjustment may be the cause. In AUTO charging mode, the cause may be a fault in the function of the riding position compensation. In this state, the motorcycle is probably heavily damped and is uncomfortable to drive, especially on poor roadways. Alternatively, the spring preload may be set incorrectly.

- Have the malfunction corrected as soon as possible at an authorized service facility, preferably an authorized BMW Motorrad Retailer.

Fuel down to reserve



Low-fuel warning light lights up.



WARNING

Rough engine running or switching off of the engine due to a fuel shortage

Accident hazard, damage to catalytic converter

- Do not drive to the extent that the fuel tank is completely empty. ◀

Possible cause:

At the most, the fuel tank still contains the reserve fuel quantity.



Reserve fuel quantity

Approx. 1.1 gal (Approx. 4 l)

- Refueling procedure (▣► 111).

Fuel reserve

The fuel quantity in the fuel tank when the low-fuel warning light switches on depends on the driving dynamics. The more the fuel moves around in the fuel tank (due to frequent changes of the banking angle, frequent braking and acceleration), the harder it is to accurately determine the fuel reserve. For this reason, the fuel reserve cannot be determined precisely.



The remaining range is displayed after the low-fuel warning light switches on. The distance that can still be traveled with the fuel reserve depends on the riding style (on

the consumption) and on the fuel quantity that was still available at the time of switch-on.

The odometer for the fuel reserve is reset when the fuel quantity after refueling is greater than the fuel reserve.

Hill Start Control active

– with Hill Start Control^{OE}



Stop symbol is displayed.

Possible cause:

The Hill Start Control (▣► 129) was activated by the rider.

- Switch off Hill Start Control.
- Using Hill Start Control (▣► 81).

Hill Start Control deactivated automatically

– with Hill Start Control^{OE}



General warning light flashes yellow.



Stop symbol flashes briefly.

Possible cause:

The Hill Start Control was deactivated automatically.

- Side stand was folded out.
 - » Hill Start Control is deactivated if the side stand is folded out.
- Engine was stopped.
 - » Hill Start Control is deactivated if the engine is stopped.
- The rider has driven off with Hill Start Control activated.
- Using Hill Start Control (▣► 81).

Hill Start Control can not be activated

– with Hill Start Control^{OE}



General warning light flashes yellow.

 Stop symbol flashes briefly.

Possible cause:

The Hill Start Control can not be activated.

- Fold in side stand.
 - » Hill Start Control only functions when the side stand is folded in.
- Start engine.
 - » Hill Start Control only functions with the engine running.

Upshift recommendation

The upshift recommendation must be switched on in the display settings (➡ 61).



Upshift recommendation **1** signals the economically best point in time for upshifting.

Upshift recommendation

 Up arrow is displayed.

Possible cause:

The speed for the next higher gear was reached.

- Upshift.
 - » The arrow disappears.

Gear not programmed

– with gearshift assistant Pro^{OE}

 The gear indicator flashes. The gearshift assistant Pro has no function.

Possible cause:

– with gearshift assistant Pro^{OE}

The transmission sensor has not been programmed completely.

- Shift to idle N and let engine run at least 10 seconds while the motorcycle is stationary so that idle can be programmed in.
- Use clutch control to shift to all gears and drive at least 10 seconds in each gear.
 - » The gear indicator stops flashing when the transmission sensor has been programmed successfully.
- If the transmission sensor has been programmed completely, the Pro gearshift assistant will operate as described (➡ 128).

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

Hazard warning lights system switched on



General warning light flashes red.



Turn signal indicator light flashes green.

Possible cause:

The hazard warning lights system was switched on by the rider.

- Switching off the hazard warning lights system (➡ 58).

Service display



If the time remaining until the next service is less than a month, or if the next service is due within 621 miles (1000 km), the service date **1** and the remaining kilometers **2** appear for a short period of time after the Pre-Ride-Check.



When a service date elapses without service, the general warning light lights up in yellow, appearing together with the date and mileage (kilometerage) display. The *Service* message is displayed continuously.



NOTICE

If the service display appears more than a month before the service date, the stored date must be adjusted in the instrument cluster. This situation can occur if the battery has been disconnected for a longer time. Consult a certified workshop, preferably an authorized BMW Motorrad retailer, for setting of the date. ◀

Service date missed



General warning light lights up yellow.

SERVICE is displayed continuously.

Possible cause:

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

- Have service performed regularly by a specialist work-

shop, preferably an authorized BMW Motorrad retailer.

- » The operating and road safety of the vehicle remains unchanged.
- » The best-possible value retention of the vehicle is ensured.

Operation

Steering and ignition lock	50	Cruise control	79
Ignition with Keyless Ride	52	Hill Start Control	81
Emergency on/off switch (kill switch)	56	Anti-theft alarm (DWA)	82
Lights	56	Heated handlebar grips	85
Hazard warning lights system	58	Rider and passenger seats	86
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Antilock Brake System (ABS)	66		
Automatic Stability Control (ASC)	67		
Dynamic Traction Control (DTC)	68		
Electronic chassis and suspension adjustment (D-ESA)	69		
Riding mode	72		
PRO riding mode	74		

Steering and ignition lock

Keys

You are provided with 2 ignition keys.

Should you lose your keys, refer to the information regarding the electronic immobilizer (EWS) (► 51).

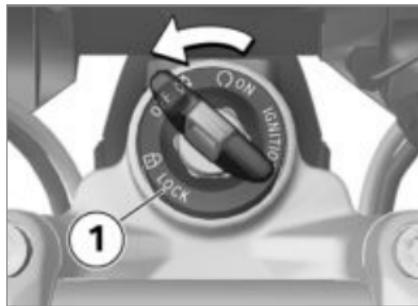
A single key fits the steering and ignition lock, the fuel filler cap and the seat lock.

- with case^{OA}
- with topcase^{OA}

The cases and the topcase can also be ordered with locks for the same key on request. Please contact an authorized workshop for this purpose, preferably an authorized BMW Motorrad retailer.

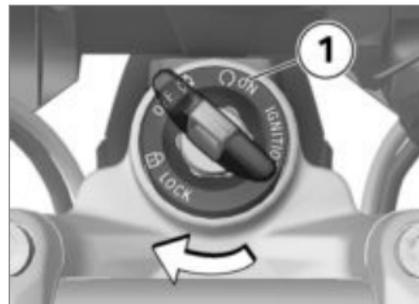
Locking handlebars

- Turn handlebars to left.



- Turn key to position **1** while moving handlebars slightly.
 - » Ignition, lights and all electrical circuits switched off.
 - » Handlebars are locked.
 - » Key can now be removed.

Switching on ignition

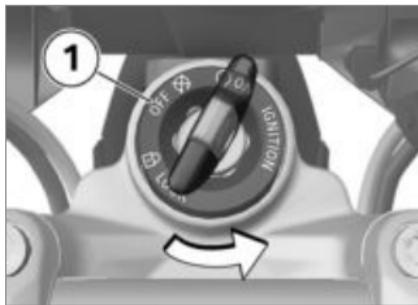


- Insert key into the steering and ignition lock. Turn key to position **1**.
 - » Parking lights and all function circuits are switched on.
 - » Pre-Ride-Check is carried out. (► 102)
 - » ABS self-diagnosis is performed. (► 102)
 - without riding modes Pro^{OE}
 - » ASC self-diagnosis in progress. (► 103)◁
 - with riding modes Pro^{OE}
 - » DTC self-diagnosis is performed. (► 104)◁

Welcome light

- Switch on the ignition.
 - » The parking lamp briefly lights up.
 - with LED auxiliary headlight^{OA}
 - » The supplementary LED headlights briefly light up.<

Switch off ignition



- Turn key to position **1**.
 - » After the ignition is switched off, the instrument cluster remains switched on for a short period of time and indicates possibly present fault codes.
 - » Handlebars not locked.

- » Electrically powered accessories remain operational for a limited period of time.
- » Battery can be recharged via onboard socket.
- » Key can now be removed.
- with LED auxiliary headlight^{OA}
- The supplementary LED headlights switch off shortly after the ignition is switched off.<

EWS Electronic immobilizer

The motorcycle's electronic circuitry monitors the data stored in the ignition key through a ring antenna incorporated in the steering and ignition lock. The engine management system does not enable engine starting until this key has been recognized as "authorized" for your motorcycle.

NOTICE

A further 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 warning with the key symbol appears in the multifunction display. Always store further vehicle keys separately from the ignition key.◀

If you lose one of your motorcycle keys, you can have it disabled by your authorized BMW motorcycle retailer.

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

Emergency and spare keys are only available through an autho-

rized BMW Motorrad retailer. The keys are part of an integrated security system, so the retailer is under an obligation to check the legitimacy of all applications for replacement/extra keys.

Ignition with Keyless Ride

– with Keyless Ride^{OE}

Keys

NOTICE

The indicator light for the radio-operated key flashes as long as the radio-operated key is being searched for.

If the radio-operated key or the emergency key is detected, it goes out.

If the radio-operated key or the emergency key is not detected, it lights up briefly. ◀

You are provided with one radio-operated key and one emergency key. Should you lose your keys, refer to the information regarding the electronic immobilizer (EWS) (▶▶ 51).

The ignition, tank filler cap and anti-theft alarm system are controlled with the radio-operated key. The seat lock, Topcase and case can be operated manually.

NOTICE

When the range of the radio-operated key is exceeded (e.g. in case or Topcase), the motorcycle cannot be started and the central locking system cannot be locked/unlocked.

If the range is exceeded, the ignition is switched off after approx. 1.5 minutes and the central locking system is **not** locked.

It is advisable to carry the radio-operated key directly on your person (e.g. in a jacket pocket)

and to also carry the emergency key as an alternative. ◀

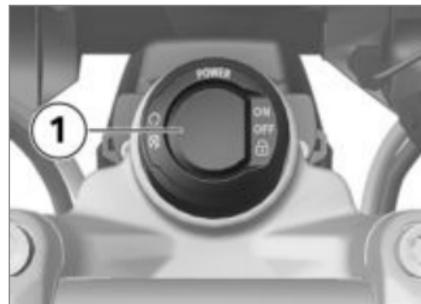
 Range of Keyless Ride radio-operated key

– with Keyless Ride^{OE}

Approx. 3.3 ft (Approx. 1 m) ◀

Locking handlebars Requirement

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



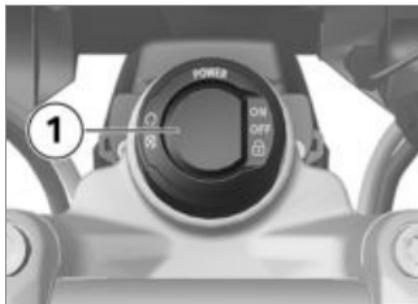
- Press and hold button **1**.

- » Steering lock audibly locks.
- » Ignition, lights and all electrical circuits switched off.
- To unlock the steering lock, briefly press button **1**.

Switching on ignition

Requirement

Radio-operated key is within reception range.



- The ignition can be activated in **two** ways.

Version 1:

- Briefly press button **1**.

- » Parking lights and all function circuits are switched on.
 - with LED auxiliary headlight^{OA}
- » LED additional headlights are switched on.<
- » Pre-Ride-Check is carried out. (➡ 102)
- » ABS self-diagnosis is performed. (➡ 102)
 - without riding modes Pro^{OE}
- » ASC self-diagnosis in progress. (➡ 103)<

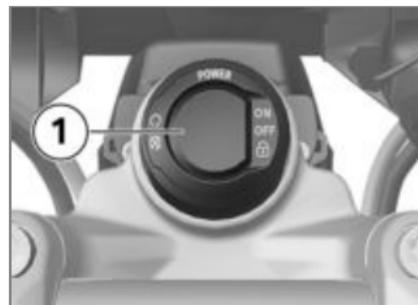
Version 2:

- Steering lock is locked, press and hold button **1**.
- » Steering lock is unlocked.
- » Parking lights and all function circuits switched on.
- » Pre-Ride-Check is carried out. (➡ 102)
- » ABS self-diagnosis is performed. (➡ 102)
 - without riding modes Pro^{OE}
- » ASC self-diagnosis in progress. (➡ 103)<

Switch off ignition

Requirement

Radio-operated key is within reception range.



- The ignition can be deactivated in **two** ways.

Version 1:

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

Version 2:

- Turn handlebars to left.
- Press and hold button **1**.
- » Light is switched off.
- » Steering lock is locked.

EWS Electronic immobilizer

The motorcycle's electronic circuitry monitors the data stored in the radio-operated key through a ring antenna incorporated in the radio lock. The engine management system does not enable engine starting until the radio-operated key has been recognized as "authorized" for your motorcycle.



NOTICE

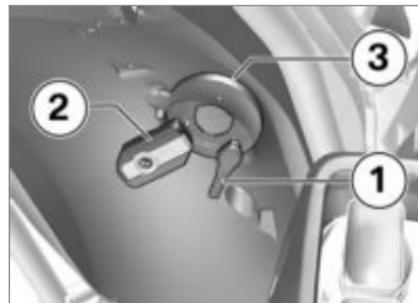
A further key attached to the same ring as the radio-operated key used to start the engine could "irritate" the electronics, in which case the enabling signal for starting is not issued. The warning with the key symbol appears in the multifunction display. Always keep the other vehicle key separate from the radio-operated key. ◀

If you lose a radio-operated key, you can have it disabled by your authorized BMW Motorrad retailer. When having a key disabled you should also bring all of the motorcycle's remaining keys with you.

The engine can no longer be started using a disabled radio-operated key; however, a disabled radio-operated key can be enabled again.

Emergency and spare keys are only available through an authorized BMW Motorrad retailer. As the radio-operated keys are part of an integrated security system, the retailer is under an obligation to check your legitimacy.

Battery of the key fob transmitter is empty or the key fob transmitter is lost



- Should you lose your keys, refer to the information regarding the electronic immobilizer (EWS).
- Should you lose the radio-operated key while driving, the motorcycle can be started by using the emergency key.
- If the battery of the key fob transmitter is empty, the vehicle can be started by touching

the rear wheel cover with the key fob transmitter.

- Hold the emergency key **1** or the empty key fob transmitter **2** against the rear wheel cover at the height of the antenna **3**.

NOTICE

The emergency key or the drained radio-operated key must **contact** the rear wheel cover. ◀

 Period in which the engine must be started. Then unlocking must be repeated.

30 s

- » Pre-Ride-Check is carried out.
- Key has been detected.
- Engine can be started.
- Starting engine (➡ 101).

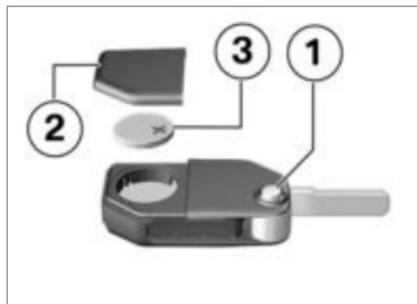
Replacing the battery of the key fob transmitter

Requirement

The key fob transmitter does not react because the battery is weak.

! KEYLO is displayed.

- Replace battery.



- Press button **1**.
- » Key bit folds open.
- Press battery cover **2** upward.
- Remove battery **3**.
- Dispose of the old battery in accordance with legal regula-

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

ATTENTION

Unsuitable or improperly inserted batteries

Component damage

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

 Battery type

for Keyless Ride radio-operated key

CR 2032

- Install battery cover **2**.
- » Red LED in instrument panel flashes.

» The key fob transmitter is working again.

Emergency on/off switch (kill switch)



- 1 Emergency on/off switch (kill switch)



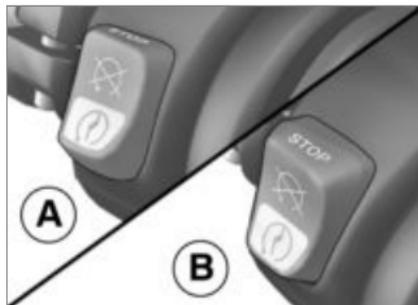
WARNING

Operation of the emergency ON/OFF switch when riding

Danger of falling due to blocking of rear wheel

- Do not operate the emergency ON/OFF switch when riding. ◀

The engine can be switched off easily and quickly using the emergency on/off switch.



- A Engine switched off
B Operating position

Lights

Low-beam headlight and parking lights

The parking lights come on automatically when the ignition is switched on.



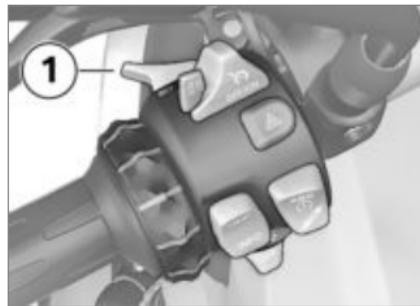
NOTICE

The parking lights are a strain on the battery. Do not leave the ignition switched on longer than absolutely necessary. ◀

The low-beam headlight switches on automatically when the engine is started.

High-beam headlight and headlight flasher

- Switching on ignition (→ 50).

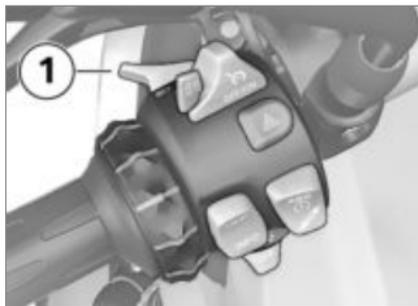


- Press switch 1 toward front to switch on high-beam headlight.

- Pull switch **1** toward rear to actuate headlight flasher.

Headlight courtesy delay feature

- Turn off ignition.

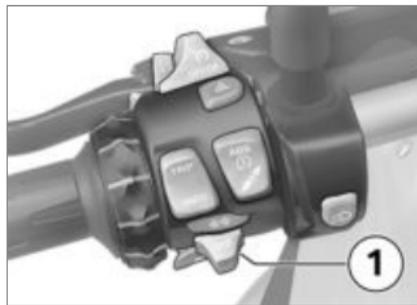


- Immediately after switching off the ignition, push the switch **1** back and hold it until the headlight courtesy delay feature comes on.
 - » The vehicle lights light up for a minute and then switch off again automatically.
- This can be used after parking the vehicle in order to illu-

minate the path to the house door, for instance.

Parking lights

- Switch off ignition (☛ 51).



- Immediately after switching off the ignition press the **1** button and maintain pressure until the parking light come on.
- Switch ignition on and then off again to switch off parking light.

LED auxiliary driving lamp

– with LED auxiliary headlight^{OA}

Requirement

The LED auxiliary headlights are only active when the low beam is active.

NOTICE

The auxiliary headlights are approved for use as fog lights and may only be used in poor weather conditions. Comply with the country-specific road traffic regulations.◀

- Starting engine (☛ 101).



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

 The indicator light for the LED auxiliary headlight lights up.

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

Hazard warning lights system

Operating hazard warning flashers

- Switching on ignition (➡ 50).



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 lights system.



General warning light flashes red.



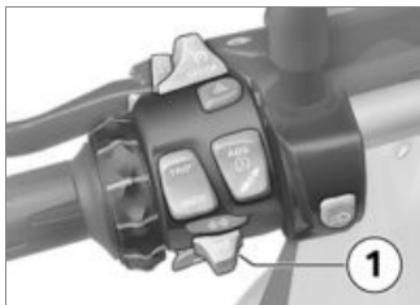
Turn signal indicator light flashes green.

- » Ignition can be switched off.
- To switch off the hazard warning lights system, switch on the ignition if the engine is not already running and press button **1** again.
- » The general warning light and the turn signal indicator light go out.

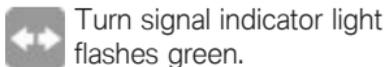
Turn indicators

Operating turn indicators

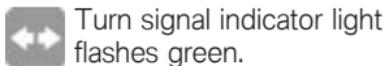
- Switching on ignition (➡ 50).



- Press button **1** to left to switch on left-side turn indicators.



- Press button **1** to right to switch on right-side turn indicators.



- Press button **1** into center position to switch off turn indicators.



Turn indicator cancellation

The turn indicators automatically switch off when the defined riding time and distance have been reached.

- » The turn signal indicator light goes out.

Multifunction display

Selecting display at the top

- Switching on ignition (🔑➔ 50).



- Press button **1** briefly to select the display in the top line of display **2**.

In the case of standard equipment, the following values can be displayed and selected per push of a button:

- Total mileage (ODO)
- Trip distance 1 (TRIP 1)
- Trip distance 2 (TRIP 2)
- Range (RANGE)
- SETUP menu (SETUP ENTER), only while stationary

– with on-board computer Pro^{OE}

The following information is additionally displayed using the on-board computer Pro:

- Automatic odometer (TRIP A)
- Current fuel consumption (CONS C)
- Current speed (SPEED)◀

Selecting display at the bottom



- Press button **1** briefly to select the display in the bottom line of display **2**.

In the case of standard equipment, the following values can be

displayed and selected per push of a button:

- Outside temperature (EXTEMP)
- Engine temperature (ENGTEMP)
- Average consumption 1 (CONS 1)
- Average consumption 2 (CONS 2)
- Average speed (Ø SPEED)
- with Tire Pressure Monitor (TPM)^{OE}
- Tire inflation pressures (option) (TPM/RDC)◀
- Date (DATE)
- Oil level indicator (OILLVL)
- with on-board computer Pro^{OE}
- Onboard electrical system voltage (VOLTGE)◀
- with on-board computer Pro^{OE}
- Stopwatch overall time (ALTIME)◀

– with on-board computer Pro^{OE}

- Stopwatch driving time (RDTIME)◀

Resetting the trip odometer

- Switching on ignition (▶▶ 50).



- Repeat pressing button **1** briefly, until the odometer to be reset is shown in the top line of the display **2**.
- Press and hold button **1** until displayed value has been reset.

Resetting average data

- Switching on ignition (☛ 50).



- Repeat pressing button **1** briefly, until the average value to be reset is shown in the bottom line of the display **2**.
- Press and hold button **1** until displayed value has been reset.

Configuring functions

- Switching on ignition (☛ 50).



- Briefly press button **1** repeatedly until SETUP ENTER is shown in the upper lines of the display **2**.
- Press and hold button **1** to start the SETUP menu.
 - » The following is indicated in the display depending on the equipment selected.



- Press button **1** briefly to respectively switch to the next menu item.
 - » The menu item appears in the top line of the display **2**.
 - » The adjusted value appears in the bottom line of the display **3**.
- Press button **4** briefly to change the adjusted value. The following menu items can be selected:
 - with anti-theft alarm system (DWA)^{OE}
 - DWA: Switches alarm system on (ON) or off (OFF)◀

- with preparation for navigation system^{OE}
- GPS TM: If a navigation system is installed: apply GPS time and GPS date (ON) respectively do not apply them (OFF)◀
- CLOCK: Setting the clock
- DATE: Setting the date
- ECOSFT: Show upshift recommendation in the display (ON) respectively do not show it (OFF)
- BRIGHT: Adjust display brightness from normal (0) to bright (5)
- EXIT: Exit SETUP menu
- with on-board computer Pro^{OE}
- BC CUSTOM: Starts display customization.◀



- In order to exit the SETUP menu, press and hold menu item SETUP EXIT, button 1.
- In order to exit the SETUP menu at any time, press and hold button 1.

Set clock

- Switching on ignition (→ 50).



WARNING

Adjusting the clock while riding

Accident hazard

- Adjust the clock only when the motorcycle is stationary.◀

- In the SETUP menu, select the SETUP CLOCK menu item.



- Press and hold button 2, until the hours flash in the bottom line of display 3.



NOTICE

If "-- : --" is indicated instead of the time, the power supply to the instrument cluster was interrupted (e.g., the battery was disconnected).◀

- Increase the flashing value using button **1** respectively decrease it using button **2**.
- Press and hold button **2**, until the minutes flash in the bottom line of display **3**.
- Increase the flashing value using button **1** respectively decrease it using button **2**.
- Press and hold button **2**, until the minutes stop flashing.
- » The adjustment is completed.
- In order to cancel the adjustment at any time, press and hold button **1**, until the original value is displayed again.

NOTICE

The adjustment is canceled, if you ride off before the adjustment is completed.◀

Set date

- Switching on ignition (▣→ 50).

- In the SETUP menu, select the SETUP DATE menu item.



- Press and hold button **2**, until the month flashes in the bottom line of display **3**.

NOTICE

If "-- . -- . --" is indicated instead of the date, the power supply to the instrument cluster was interrupted (e.g., the battery was disconnected).◀

- Increase the flashing value using button **1** respectively decrease it using button **2**.
- Press and hold button **2**, until the day flashes in the bottom line of display **3**.
- Increase the flashing value using button **1** respectively decrease it using button **2**.
- Press and hold button **2**, until the year flashes in the bottom line of display **3**.
- Increase the flashing value using button **1** respectively decrease it using button **2**.
- Press and hold button **2**, until the year stops flashing.
- » The adjustment is completed.
- In order to cancel the adjustment at any time, press and hold button **1**, until the original value is displayed again.

**NOTICE**

The adjustment is canceled, if you ride off before the adjustment is completed.◀

Customize display

– with on-board computer Pro^{OE}

- Switching on ignition (→ 50). In the individualization menu it is possible to adjust, which information should be shown in which display line.
- In the SETUP menu, select the SETUP BC BASIC menu item.



- Press button **1** briefly to start the individualization menu.
 - » SETUP BC CUSTOM is indicated.
- Press button **1** briefly again to exit the individualization menu.

**NOTICE**

If SETUP BC BASIC is selected, the factory setting becomes active again. The CUSTOM individualization remains stored.◀



- Press and hold button **1** to display the first menu item.
 - » SETUP BC ODO is indicated.



- Press button **2** briefly to respectively switch to the next menu item.

- » The menu item appears in the top line of the display **3**.
- » The adjusted value appears in the bottom line of the display **4**. The following values can be adjusted.
 - TOP: The value is indicated in the top line of the display.
 - BELOW: The value is indicated in the bottom line of the display.
 - BOTH: The value is indicated in both lines of the display.
 - OFF: The value is not indicated.
 - Press button **1** briefly to change the adjusted value. The following menu items can be selected. The factory setting is indicated in parentheses. Some menu items are displayed only, if the respective optional equipment is installed.
 - ODO: Odometer (TOP, setting OFF is not possible)
 - TRIP 1: Tripmeter 1 (TOP)
 - TRIP 2: Tripmeter 2 (TOP)
 - TRIP A: Automatic trip distance recorder (TOP)
 - EXTEMP: Outside temperature (BELOW)
 - ENGTMP: Engine temperature (BELOW)
 - RANGE: Range (TOP)
 - CONS R: Average consumption for range calculation (OFF)
 - CONS 1: Average consumption 1 (BELOW)
 - CONS 2: Average consumption 2 (BELOW)
 - CONS C: Current fuel consumption (TOP)
 - ØSPEED: Average speed (BELOW)
 - SPEED: Current speed (TOP)
 - RDC: Tyre inflation pressures (BELOW)
 - VOLTGE: Onboard electrical system voltage (BELOW)
 - ALTIME: Stopwatch overall time (BELOW)
 - RDTIME: Stopwatch driving time (BELOW)
 - DATE: Date (BELOW)
 - SERV T: Date of next service (OFF)
 - SERV D: Remaining mileage until next service (OFF)
 - OILLVL: Oil level indicator (BELOW)
 - EXIT: exit individualization menu



- In order to exit the individualization menu, press and hold menu item SETUP EXIT, button **1**.

- In order to exit the individualization menu at any point in time, press and hold button **2**.
- » All adjustments applied until then will be stored.

Antilock Brake System (ABS)

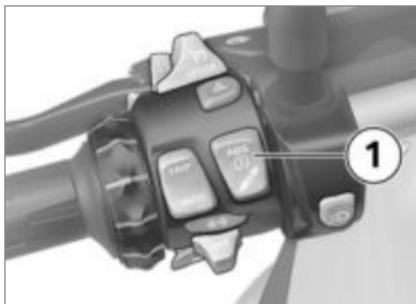
Deactivating ABS function

- Switching on ignition (➡ 50).



NOTICE

The ABS function can also be deactivated while driving.◀



- Press and hold the **1** button until the ABS indicator light changes its display behavior.
- » The ASC symbol's status changes first. Press and hold the **1** button until the ABS indicator light reacts. In this case, the ASC setting does not change.



ABS indicator light lights up.

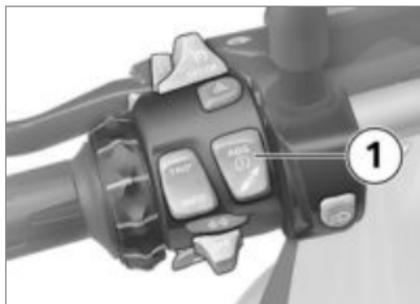
- Release button **1** within two seconds.



ABS indicator light continues to be lit up.

- » ABS function is deactivated, integral function continues to be active.
- with Hill Start Control^{OE}
- » The function of the Hill Start Control remains active.◀
- More detailed information on the BMW Motorrad Integral ABS brake systems can be found in the "Technology in detail" chapter:
- » Partially integral brake (➡ 118)
- with Hill Start Control^{OE}
- » Function of the Hill Start Control (➡ 129)◀

Switch on ABS function



- Press and hold the **1** button until the ABS indicator light changes its display behavior.
 ABS indicator light goes out, and starts to flash if self-diagnosis has not been completed.
- Release button **1** within two seconds.
 ABS indicator light remains off or continues to flash.

» ABS function is now activated.

- As an alternative, the ignition can also be switched off and then on again.

 If the ABS indicator and warning light lights up after switching the ignition off and on and then continuing driving above the minimum speed, an ABS fault has occurred.

min 6 mph (min 10 km/h)

- with riding modes Pro^{OE}
- If the coding plug is not installed, the ignition can also be turned off and then on again as an alternative.<

Automatic Stability Control (ASC)

- without riding modes Pro^{OE}

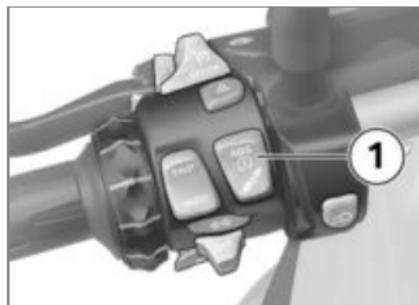
Deactivating ASC function

- Switching on ignition (▶▶ 50).



NOTICE

The ASC function can also be deactivated while driving.<

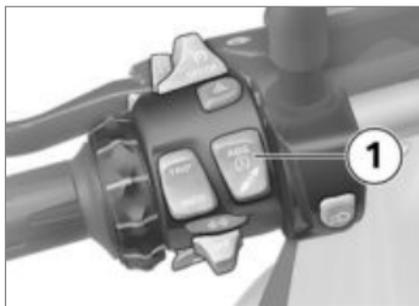


- Press and hold the **1** button until the ASC indicator and warning light changes its display behavior.
 ASC indicator and warning light lights up.
- Release button **1** within two seconds.

 ASC indicator and warning light continues to be lit up.

» ASC function is deactivated.

Activating ASC function



- Press and hold the **1** button until the ASC indicator and warning light changes its display behavior.

 ASC indicator and warning light is no longer lit; if self-diagnosis is incomplete, it begins flashing.

- Release button **1** within two seconds.

 ASC indicator and warning light remains off or continues flashing.

» ASC function is activated.

- As an alternative, the ignition can also be switched off and then on again.

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

min 6 mph (min 10 km/h)

- More detailed information on the BMW Motorrad Automatic Stability Control (ASC) can be found in the "Technology in detail" chapter:
- » How does ASC work? (➡ 121)

Dynamic Traction Control (DTC)

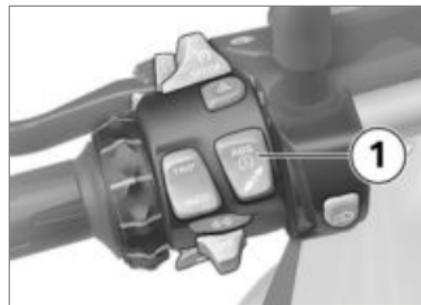
Deactivating DTC

– with riding modes Pro^{OE}

- Switching on ignition (➡ 50).

NOTICE

The DTC function can also be deactivated while driving. ◀



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

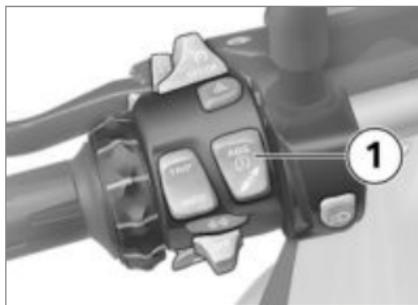
 DTC indicator and warning light lights up.

- Release button **1** within two seconds.

 DTC indicator and warning light remains on.

» DTC is deactivated.

Switching on DTC



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

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

- Release button **1** within two seconds.

 DTC indicator light remains off or continues to flash.

» DTC activated.

- If the coding plug is not installed, the ignition can also be turned off and then on again as an alternative.

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

min 6 mph (min 10 km/h)

- More detailed information on the BMW Motorrad Dynamic Traction Control (DTC) can be

found in the "Technology in detail" chapter:

» How does Traction Control function? (►► 122)

Electronic chassis and suspension adjustment (D-ESA)

– with Dynamic ESA^{OE}

Dynamic ESA adjustment options

The electronic chassis and suspension adjustment Dynamic ESA can automatically adapt your motorcycle to the load. If the spring preload is set to AUTO, the rider does not need to worry about the load setting.

More detailed information on Dynamic ESA can be found in the "Technology in detail" (►► 123) chapter.

Available damping modes

- For roads: ROAD and DYNA
- For off-road: ENDURO

Available load settings

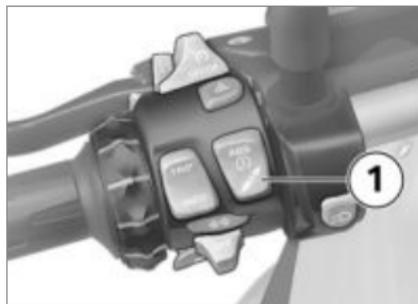
- Fixed, minimum spring preload: MIN
- Active riding position compensation with automatic adjustment of the spring preload: AUTO
- Fixed, maximum spring preload: MAX



NOTICE

Use the MAX setting only when riding off-road. ◀

Display suspension setting



- Switching on ignition (⏻ 50).
- Press button **1** briefly to display current adjustment.

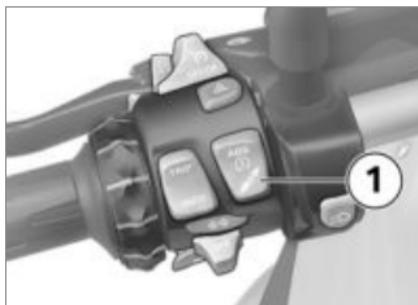


The damping is displayed in the multifunction display in area **1**, and spring preload is indicated in area **2**.

» The display automatically disappears again after a short time.

Setting suspension compliance

- Switching on ignition (⏻ 50).



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

To set the damping rate:

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

NOTICE

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

The following settings are available:

- ROAD: damping for comfortable riding on roads

- DYNA: damping for dynamic riding on roads
- ENDURO: damping for off-road riding. Is only available in the ENDURO or ENDURO PRO riding modes and can not be adjusted further in these riding modes.

To set the spring preload:

- Starting engine (▶▶▶ 101).
- Press button **1** briefly to display the current setting of the chassis and suspension.
- Repeatedly press and hold button **1** until the desired setting is displayed.

NOTICE

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

NOTICE

Use the MAX setting only when riding off-road.◀

The following settings are available:

- MIN: minimum spring preload
- AUTO: automatic adjustment of the spring preload
- MAX: maximum spring preload

- » If button **1** is not pressed for an extended period, the damping action and the spring preload will be adjusted to the displayed settings.
- » The D-ESA display flashes during the adjustment to MIN or MAX.
- » The D-ESA display disappears once the setting procedure has been completed.
- » In the loading mode AUTO, the spring preload is only adjusted after driving off.

Riding mode

Use of the riding modes

BMW Motorrad has developed riding scenarios for your motorcycle from which you can select the one matching your situation:

Series

- Riding on wet roads.
- Riding on dry roads.

– with riding modes Pro^{OE}

With riding mode Pro

- Brisk riding on dry roads.
- Riding off-road with road tires.

With riding mode Pro and installed coding plug

- Dynamic riding on dry roads taking into account settings made by the rider.
- Off-road riding with knobby off-road tires taking into account settings made by the rider.

For each of these scenarios, the optimum interaction between throttle response, ABS control and ASC/DTC control is provided.

– with Dynamic ESA^{OE}

The chassis and suspension adjustments can also be adapted in the selected scenario.

More detailed information about the riding modes can be found in the "Technology in detail" (➡ 124) chapter.

Select riding mode

- Switching on ignition (➡ 50).



- Press button **1**.



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



ATTENTION

Turning on off-road mode (Enduro and Enduro Pro) when in road mode

Risk of falling due to unstable riding conditions when braking or accelerating in the ABS or ASC/DTC control range

- Switch off-road mode (Enduro and Enduro Pro) during off-road riding on only. ◀
- Press button **1** repeatedly until the selection arrow is shown next to the desired riding mode.

NOTICE

When selecting the Enduro PRO riding mode: keep in mind that ABS control for the rear wheel is deactivated. ◀

The following riding modes can be selected:

- RAIN: when riding on wet roads.
- ROAD: When riding on dry roads.
- with riding modes Pro^{OE}
 - » The following riding modes can also be selected: ◀
- DYNA: For brisk riding on dry roads.
- Enduro: when riding off-road with road tires.
- with riding modes Pro^{OE}
 - » With the coding plug installed, the riding modes DYNA PRO and Enduro PRO replace

the riding modes DYNA and Enduro: ◀

- DYNA PRO: for dynamic riding on dry roads taking into account settings made by the rider.
- Enduro PRO: off-road riding with knobby off-road tires taking into account settings made by the rider.
 - » When the motorcycle is stationary, the selected riding mode is activated after approx. 2 seconds.
 - » The new riding mode is activated during operation under the following conditions:
 - Throttle grip is in idle position.
 - Brake is not engaged.
 - » After the new riding mode is activated, the clock is displayed again.
 - » The values set in SETUP MODE are not displayed continuously but rather are only

shown consecutively for a limited time after the following events:

- After every Pre-Ride-Check for active PRO riding mode.
- After changing to the Enduro PRO riding mode.
- After changing to the DYNA PRO riding mode.
- » The riding mode selected and its associated engine-characteristic, ABS, ASC/DTC and Dynamic ESA settings are retained even after the ignition has been switched off.

PRO riding mode

- with riding modes Pro^{OE}

Start SETUP MODE

- Install coding plug (➔ 78).
- Switching on ignition (➔ 50).



- Repeat pressing button **1** briefly, until in the top line of the display **2** SETUP ENTER is shown.
- Press and hold button **1** to start the SETUP menu.

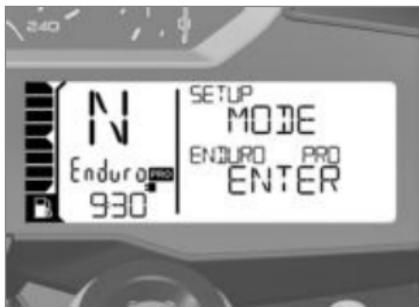


SETUP MODE ENDURO PRO
ENTER is displayed.



- Press button **4** briefly to switch between the riding modes PRO **3**.

- » SETUP DTC is displayed.
- Alternatively, press and hold button **4** to exit SETUP MODE.



SETUP MODE ENDURO PRO ENTER is displayed.



- Press button **1** repeatedly until SETUP EXIT is displayed.
 - Press and hold button **1**.
- » The onboard computer is displayed.

Adjusting DYNA PRO

– with riding modes Pro^{OE}

- Start SETUP MODE (➔ 74).
- » SETUP DTC is displayed.



- Press button **4** briefly to set DTC to RAIN, ROAD or DYNA **3**.
 - Press button **1** briefly.
- » SETUP ENGINE is displayed.
- Press button **4** briefly to set ENGINE to RAIN, ROAD or DYNA.
 - Press button **1** briefly.



NOTICE

ABS can only be set in the Enduro PRO riding mode.◀

» SETUP MODE RESET is displayed.



- Press button **1** briefly to keep the settings.
- » SETUP MODE EXIT is displayed.
- Alternatively, press and hold button **4** to reset all parameters.
- » Factory setting for riding mode DYNA PRO is adopted:
 - DTC : DYNA
 - ENGINE : DYNA
- » RESET flashes 3 times.

» SETUP MODE EXIT is displayed.



- Press button **1** briefly to return to the start of the settings.
 - » SETUP DTC is displayed.
 - Alternatively, press and hold button **4** to exit SETUP MODE.
- SETUP MODE DYNA PRO
ENTER is displayed.



- Press button **1** repeatedly until SETUP EXIT is displayed.
- Press and hold button **1**.
- » The onboard computer is displayed.

Switching off TCP/RDC in off-road mode

Requirement

Off-road riding should be done with reduced tire pressure.

Requirement

One of the two riding modes ENDURO or ENDURO PRO was set in order to be able to switch off RPA warning.

- Switching on ignition (➡ 50).



- Repeat pressing button **1** briefly, until in the top line of the display **2** SETUP ENTER is shown.
- Press and hold button **1** to start the SETUP menu.



- Press button **1** briefly to respectively select the RDC/TPC menu item.
 - » The top line of the display **2** shows RDC.
 - » The adjusted value appears in the bottom line of the display **3**.
- Press button **4** briefly to change the adjusted value.
 - » The following settings for RDC Enduro are possible:

ON: the TPC warning symbol is no longer shown on the display. Only the tire pressure outside of the permitted tolerance is displayed.



OFF: the display warning symbol for TPM is displayed; the tire pressure outside of the permitted tolerance is also displayed.

Install coding plug

- Switch off ignition (➡ 51).
- Remove rider's seat (➡ 87).



ATTENTION

Penetration of dirt and moisture in the open connector

Malfunctions

- After removing the encoding plug, refit the cover cap.◀
- Remove cover cap of the plug connection **1**.



- To do so, press in locking mechanism **1** and pull off protective cap.
- Install coding plug.
- Switch on the ignition.

NOTICE

If the coding plug is connected, deactivated riding safety systems remain deactivated even after the ignition is turned off and on.◀



Symbol for the coding plug **1** appears on the display. Riding modes **2** Enduro PRO and DYNA PRO can be selected and replace the riding modes Enduro and DYNA.

- Installing rider's seat (➔ 88).

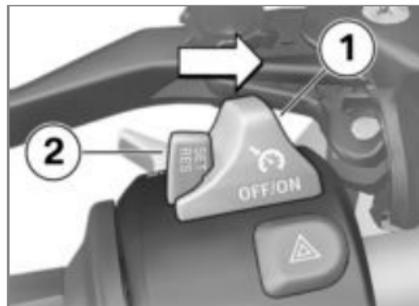
Cruise control

– with cruise control^{OE}

Switch on cruise-control system

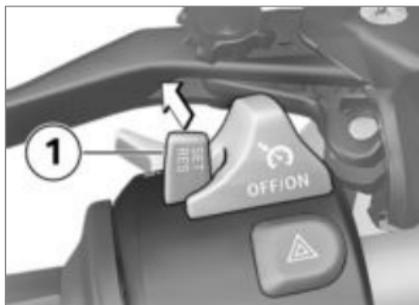
Requirement

Cruise control is not available again until after the Enduro or Enduro Pro riding mode has been deactivated.



- Push switch **1** to right.
- » Button **2** is operable.

Store speed



- Briefly press button **1** forward.

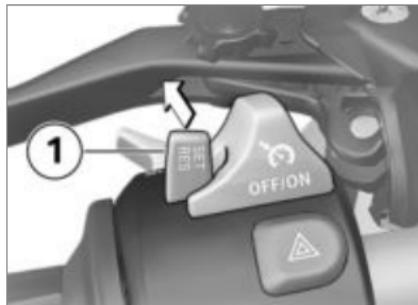
 Adjustment range of the cruise control (gear-dependent)

12...130 mph (20...210 km/h)

 Indicator lamp for cruise-control system lights up.

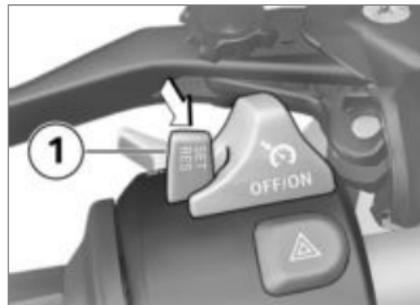
- » The motorcycle maintains your current cruising speed and the setting is saved.

Accelerating



- Briefly press button **1** forward.
 - » Speed is increased by 1.2 mph (2 km/h) each time the button is pressed.
- Press button **1** forward and hold.
 - » The motorcycle accelerates steplessly.
 - » If the button **1** is no longer pressed, the speed achieved is maintained and saved.

Decreasing speed



- Briefly press button **1** backward.
 - » Speed is reduced by 1.2 mph (2 km/h) each time the button is pressed.
- Press button **1** back and hold.
 - » The motorcycle decelerates steplessly.
 - » If the button **1** is no longer pressed, the speed achieved is maintained and saved.

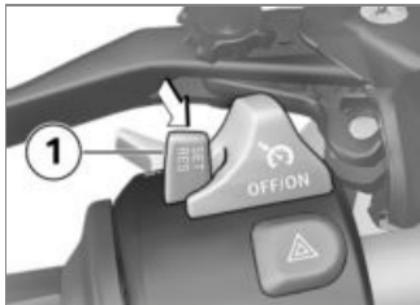
Deactivate cruise control

- Actuate brakes, clutch or throttle grip (take back throttle be-

yond back position) to deactivate cruise-control system.

» Cruise control indicator lamp goes out.

Resume former cruising speed



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

NOTICE

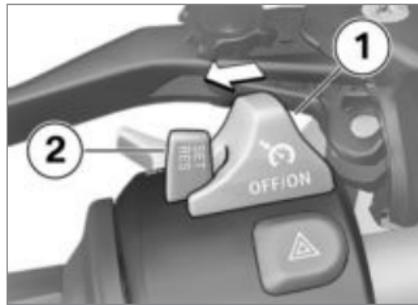
Opening the throttle does not deactivate the cruise-control system. If you release the throttle grip, the motorcycle will decel-

erate only to the cruising speed saved in memory, even though you might have intended slowing to a lower speed.◀



Indicator lamp for cruise-control system lights up.

Switch off cruise-control system



- Push switch **1** to left.
 - » The system is deactivated.
 - » Button **2** is locked.

Hill Start Control

– with Hill Start Control^{OE}

Using Hill Start Control Requirement

The motorcycle is stopped.

ATTENTION

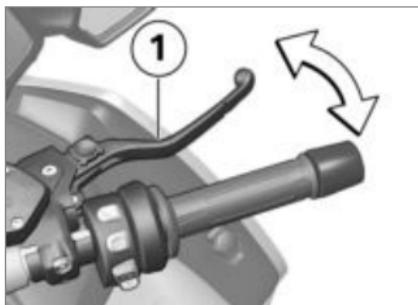
Switching off the engine or ignition, folding out the side stand, timeout (approx. 20 minutes) or in the event of a fault

Hill Start Control brake failure

- It is imperative to secure the motorcycle by manual braking.◀

NOTICE

Hill Start Control is only a convenience system for easier hill-starting and should, therefore, not be confused with a parking brake.◀



- Apply brake lever **1** firmly and then release.



Stop symbol is displayed.

- » Hill Start Control is activated.
- To turn off Hill Start Control, actuate brake lever **1** again.



Stop symbol disappears.

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



NOTICE

Hill Start Control is automatically deactivated when driving off. ◀



General warning light flashes yellow.



Stop symbol flashes briefly.



The stop symbol disappears after the brakes have been released completely.

- » Hill Start Control is turned off.
- More detailed information on Hill Start Control can be found in the "Technology in detail" chapter:
- » Function of the Hill Start Control (▶▶▶ 129)

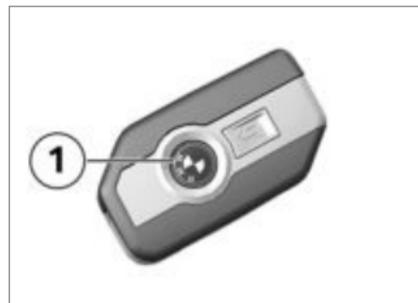
Anti-theft alarm (DWA)

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

Activation

- Switching on ignition (▶▶▶ 50).
- Anti-theft alarm system settings (▶▶▶ 84).

- Turn off ignition.
 - » If DWA is activated, DWA is automatically activated after the ignition is switched off.
 - » Activation takes approximately 30 seconds to complete.
 - » Turn indicators are illuminated twice.
 - » Confirmation tone sounds twice (if programmed).
 - » The anti-theft alarm system is active.
- with Keyless Ride^{OE}



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

- » Activation takes approximately 30 seconds to complete.
- » Turn indicators are illuminated twice.
- » Confirmation tone sounds twice (if programmed).
- » The anti-theft alarm system is active.

- » Turn signals are illuminated three times.
- » Confirmation tone sounds three times (if programmed).
- » Movement sensor is deactivated.

Alarm signal

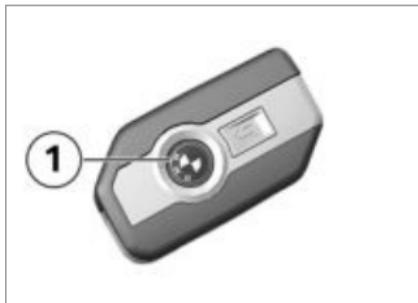
The DWA alarm can be set off by:

- Motion sensor
- Switching on ignition with an unauthorized motorcycle key
- Disconnecting the DWA from the motorcycle battery (DWA battery takes over the power supply – alarm sound only, hazard warning lights do not flash)

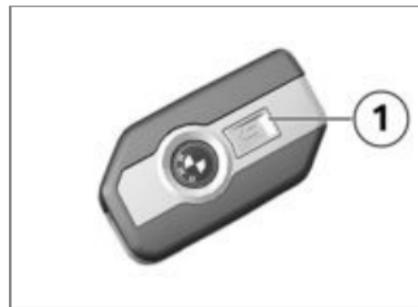
If the DWA battery is discharged all functions remain operational; the only difference is that the alarm cannot be set off if the system is disconnected from the motorcycle battery.

The duration of the alarm is approx. 26 seconds. During the alarm, an alarm tone sounds and the turn indicators flash. The type of alarm sound can be set by an authorized BMW Motorrad retailer.

– with Keyless Ride^{OE}



- To deactivate the movement sensor (for example if you are about to transport the motorcycle on a train and the swaying movement of the moving train could trip the alarm), press button **1** on the radio-operated key during the activation phase.



A triggered alarm can be canceled at any time by pressing button **1** on the radio-operated key without deactivating the DWA.

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

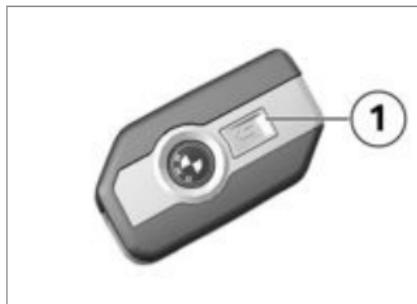
Light signals on DWA LED:

- 1 flash: motion sensor 1
- 2 flashes: motion sensor 2
- 3 flashes: ignition turned on with unauthorized ignition key
- 4 flashes: alarm system disconnected from vehicle battery
- 5 flashes: motion sensor 3

Deactivation

- Emergency on/off switch (kill switch) in normal operating position.
- Switch on the ignition.
 - » Turn indicators light up once.
 - » Confirmation tone sounds once (if programmed).

- » DWA is switched off.
- with Keyless Ride^{OE}



- Press button **1** on the radio-operated key once.

NOTICE

If the alarm function is deactivated by means of the remote control and the ignition then not switched on, the alarm function is automatically reactivated after 30 seconds if "Activation after ignition off" has been programmed.◀

- » Turn indicators light up once.

- » Confirmation tone sounds once (if programmed).
- » DWA is switched off.

Anti-theft alarm system settings

- Switching on ignition (▶▶ 50).



- Repeat pressing button **1** briefly, until in the top line of the display **2** SETUP ENTER is shown.
- Press and hold button **1** to start the SETUP menu.



- Press button **1** briefly to respectively select the DWA menu item.
 - » The top line of the display **2** shows DWA.
 - » The adjusted value appears in the bottom line of the display **3**.
- Press button **4** briefly to change the adjusted value. The following settings are available:
 - ON: DWA is activated or will be activated automatically after the ignition is switched off.
 - OFF: DWA is deactivated.

Heated handlebar grips

– with heated grips^{OE}

Operating heated grips

NOTICE

The increase in power consumption caused by the heated grips can drain the battery if you are riding at low engine speeds. If the battery is inadequately charged, the heated grips are switched off to ensure starting capability.◀

- Starting engine (➡ 101).

NOTICE

The heated grips option can only be activated when the engine is running.◀



- Press button **1** repeatedly until desired heating level **2** is shown.

The handlebar grips can be heated at two different levels.

 50 % heating output

 100 % heating output

- » The 2nd heating level is used for fast heat-up of the grips; then the switch should be switched back to the 1st level.

- » If no further changes are made the selected heating level is adopted as the setting.
- To switch off heated grips, press button **1** until heated grip symbol **2** is no longer shown in the display.

Rider and passenger seats

Remove passenger seat

- Park motorcycle, ensuring that support surface is firm and level.



- Turn seat lock **1** to the right with ignition key and hold while pressing passenger seat downward in rear area **2** to support unlocking.
- Lift passenger seat at front and release key.
- Take off passenger seat and place on a clean surface with upholstered side facing downward.

Install passenger seat

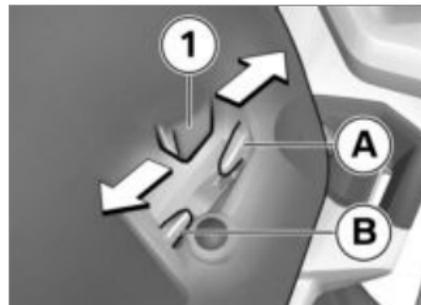


ATTENTION

Damage to components

Damage to sensors, for example, with the resultant malfunctions

- Do not carry along any objects under the rider's or passenger's seat.
- Secure vehicle tools. ◀



- Take adjustment direction of passenger seat into account depending on position of rider's seat.
- Passenger seat can be adjusted to 2 different seat positions.
- Insert passenger seat in mount with both lugs **1** centered.

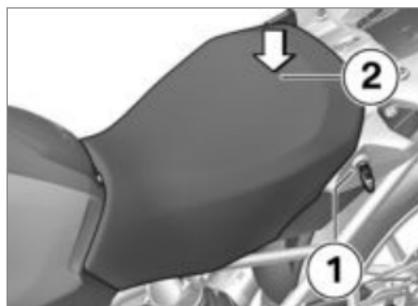
- Rear seat position: push passenger seat toward rear **A**.
- Front seat position: push passenger seat toward front **B**.
- » Lugs **1** of passenger seat are correctly fixed in place.



- Firmly press down passenger seat **1** at front.
- » Passenger seat clicks audibly into place.

Remove rider's seat

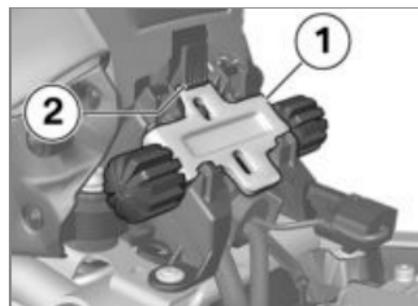
- Remove passenger seat (▶▶ 86).



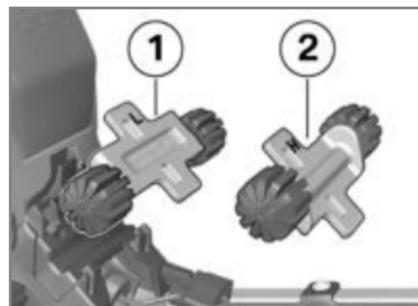
- Turn seat lock **1** to the left with ignition key and hold while pushing rider's seat downward in rear area **2** to support unlocking.
- Lift the rider's seat and release the key.
- Take off the rider's seat and place on a clean surface with the upholstered side facing down.

Adjusting the rider's seat height and inclination

- Remove rider's seat (▶▶ 87).



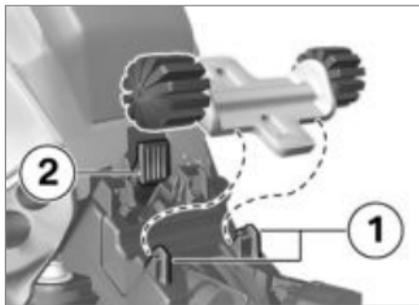
- In order to remove the front height adjustment **1**, push locking mechanism **2** forwards to remove the height adjustment upwards.



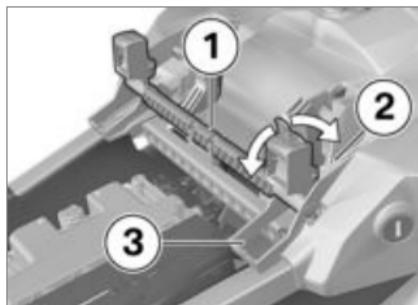
- In order to adjust the low seat position, install the front height

adjustment in orientation **1** (identification L).

- In order to adjust the high seat position, install the front height adjustment in orientation **2** (identification H).



- First, slide the front height adjustment under mounts **1**. Then press locking mechanism **2**, until it engages.



- In order to adjust the low seat position, swivel rear height adjustment **1** into position **3** (identification L).
- In order to adjust the high seat position, swivel rear height adjustment **1** into position **2** (identification H).

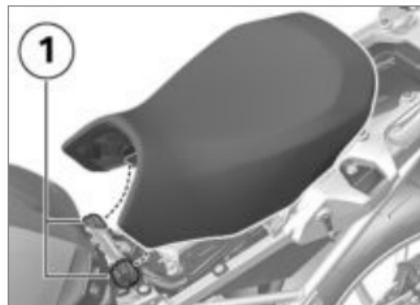
If seat tilt should be changed:

- Position the front and rear height adjustment differently.

Installing rider's seat

- Remove passenger seat (▮▮▮ 86).

- Adjusting the rider's seat height and inclination (▮▮▮ 87).



- Insert the rider's seat into the fixtures **1** on the left and right and place loosely on the motorcycle.
- Press rider's seat forward slightly in the rear area and then press down firmly until the locking mechanism engages.

Setting

Mirrors	90
Headlight	90
Wind shield	91
Clutch	91
Brakes	92
Handlebars	93
Spring preload	93
Damping	94

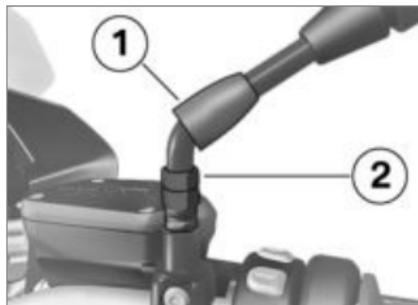
Mirrors

Adjusting mirrors



- Move mirror into desired position by twisting.

Adjusting mirror arm



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



Mirror (locknut) on adapter

16 lb/ft (22 Nm) (Left-hand thread)

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

Headlight

Headlamp range and spring preload

The headlamp range generally remains constant due to the adjustment of the spring preload to the loading state.

Spring preload adjustment may only be insufficient when the motorcycle is very heavily loaded. In this case, the headlamp range must be adjusted to the weight.



NOTICE

If there are doubts as to the correct headlight range, have the adjustment checked by a specialized workshop, preferably by an authorized BMW Motorrad retailer. ◀

Headlight range adjustment



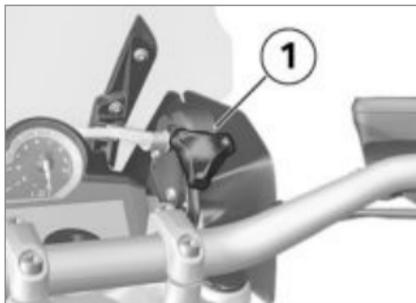
In the case of high payload, if the spring preload adjustment is not sufficient anymore to avoid blinding the oncoming traffic:

- Turn adjustment wheel **1** counterclockwise to lower the headlight beam.

If the motorcycle is ridden again with lower payload:

- Have the headlight default setting readjusted by an authorized workshop, preferably an authorized BMW Motorrad retailer.

Wind shield Adjusting windshield



WARNING

Adjusting the windshield while driving

Accident hazard

- Only adjust the windshield when the motorcycle is stationary.◀
- Turn adjustment wheel **1** clockwise to lower the windshield.

- Turn adjustment wheel **1** counterclockwise to raise the windshield.

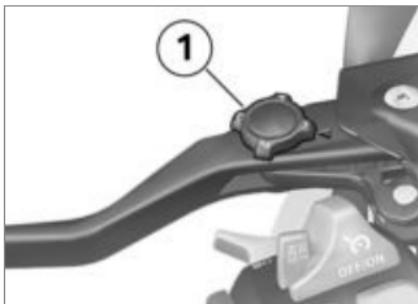
Clutch Adjusting clutch lever

WARNING

Adjusting the clutch lever while driving

Accident hazard

- Only adjust the clutch lever when the motorcycle is stationary.◀



- Turn adjusting wheel **1** into desired position.

NOTICE

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

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

Brakes

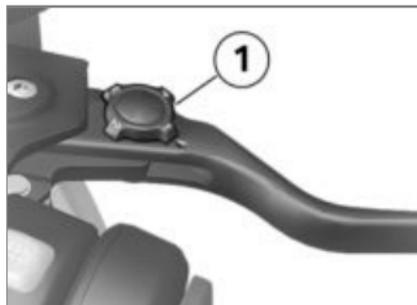
Adjusting handbrake lever

WARNING

Adjusting the brake lever while driving

Accident hazard

- Only adjust the brake lever when the motorcycle is stationary. ◀



- Turn adjusting wheel **1** into desired position.

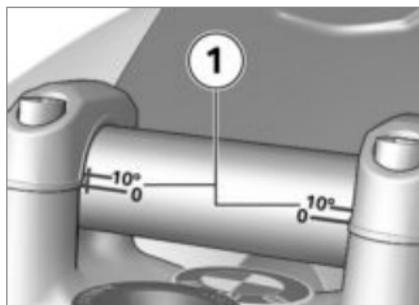
NOTICE

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

- » Four settings are available:
- Position 1: smallest distance between handlebar grip and brake lever
 - Position 4: largest distance between handlebar grip and brake lever

Handlebars

Adjustable handlebars



The handlebars inclination can be adjusted in the areas of the mark **1**.

Have the handlebars adjusted by a specialist workshop, preferably an authorized BMW Motorrad retailer.

Spring preload

– without Dynamic ESA^{OE}

Setting

It is essential to set the spring preload to suit the load carried by the motorcycle. Increase spring preload when the vehicle is heavily loaded and reduce spring preload accordingly when the vehicle is lightly loaded.

Adjusting spring preload at rear wheel

WARNING

Adjusting the spring preload while riding.

Accident hazard

- Adjust the spring preload only when the motorcycle is stationary. ◀
- Park motorcycle, ensuring that support surface is firm and level.



WARNING

Uncoordinated settings of spring preload and spring strut damping.

Poorer handling.

- Adjust damping characteristic to changed spring preload. ◀
- To increase spring load, turn the adjustment wheel **1** in direction of arrow HIGH.
- To decrease spring load, turn the adjustment wheel **1** in direction of arrow LOW.



Basic setting of spring preload, rear

Turn adjustment wheel as far as possible into LOW direction. (One-up without load)

Turn adjuster wheel as far as possible in LOW direction, then rotate 15 turns in HIGH direction. (One-up with load)

Turn adjuster wheel as far as possible in LOW direction, then rotate 30 turns in HIGH direction. (Two-up and load)

Damping

– without Dynamic ESA^{OE}

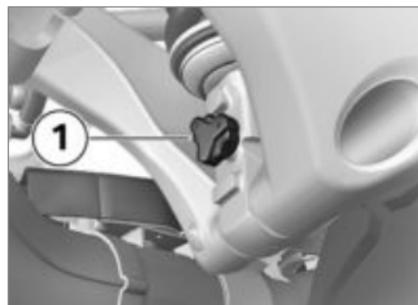
Setting

The damping must be adjusted to the road conditions and the spring preload.

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

Adjusting damping on rear wheel

- Park motorcycle, ensuring that support surface is firm and level.
- Adjust damping from the left side of the vehicle.



- To increase damping, turn adjusting screw **1** in clockwise direction.
- To reduce damping, turn adjusting screw **1** in counterclockwise direction.



Basic setting of rear wheel rear-wheel damping

Turn adjuster wheel as far as possible clockwise, then 8 clicks counterclockwise (One-up without load)



Basic setting of rear
wheel rear-wheel damp-
ing

Turn adjuster wheel as far as possible clockwise, then 2 clicks counterclockwise (One-up with load)

Turn adjuster wheel as far as possible clockwise, then 2 clicks counterclockwise (Two-up with load)

Riding

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Safety information

Rider's Equipment

Do not ride without the correct clothing. Always wear:

- Helmet
- Rider's suit
- Gloves
- Boots

This applies even to short journeys, and to every season of the year. Your authorized BMW Motorrad Dealer will be happy to advise you and has the correct clothing for every purpose.

Reduced clearance in inclined position

- with low-slung^{OE}

Motorcycles with lowered running gear have less ground clearance in all positions than motorcycles with standard running gear.



WARNING

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

Accident hazard

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

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

The lowering of the motorcycle shortens the spring travel (see the chapter "Technical Data"). A possible reduction in the accustomed driving comfort may result. Especially when riding with

a passenger, the spring preload should be adjusted accordingly.

Load



WARNING

Reduced riding stability caused by overloading and uneven loading

Accident hazard

- Do not exceed the gross weight limit and observe the loading information. ◀
- Adjust spring preload and damping rate for the current gross vehicle weight.
 - with case^{OA}
- Ensure that case volumes on left and right are equal.
- Make sure that weight is uniformly distributed between right and left.
- Pack heavy pieces of luggage and cargo as low and as close

to the center of the motorcycle as possible.

- Observe the maximum payload and maximum speed as indicated on the label in the case (see also the chapter "Accessories").◀
- with topcase^{OA}
- Observe the maximum payload and maximum speed as indicated on the label in the topcase (see also the chapter "Accessories").◀
- with tank bag^{OA}
- Observe maximum payload of tank rucksack.



Payload of tank rucksack

max 11 lbs (max 5 kg)◀

Speed

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

- Settings of spring-strut and shock absorber system
- Unevenly distributed load
- Loose clothing
- Insufficient tire inflation pressure
- Tire tread in poor condition
- Etc.

Maximum speed with studded or winter tyres



DANGER

Maximum speed of the motorcycle is higher than the permissible maximum rated speed of the tires.

Risk of accident due to tire damage at high speed.

- Observe the maximum permissible speed for the tyres.◀

With studded or winter tyres, the maximum permissible speed for the tyres must be observed. Attach a label specifying the maximum permissible speed in the field of view of the instrument cluster.

Risk of poisoning

Exhaust fumes contain carbon monoxide, which is colorless and odorless but highly toxic.



WARNING

Harmful exhaust gas

Danger of suffocation

- Do not inhale exhaust fumes.
- Do not run the engine in closed rooms.◀

Burn hazard



CAUTION

Intense heating up of engine and exhaust system while riding

Burn hazard

- After parking the motorcycle, make sure that no persons or objects come into contact with the engine and exhaust system.◀

Catalytic converter

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

The following must be observed:

- Do not run the fuel tank dry.
- Do not run the engine with the spark-plug cap removed.
- Stop the engine immediately if it misfires.
- Use unleaded fuel only.

- Comply with all specified maintenance intervals.



ATTENTION

Unburned fuel in the catalytic converter

Damage to catalytic converter

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

Danger of overheating



ATTENTION

Engine idling for a lengthy period while at a standstill

Overheating due to insufficient cooling; in extreme cases vehicle fire

- Do not allow the engine to idle unnecessarily.
- After starting, ride off immediately.◀

Modifications



ATTENTION

Modifications to the motorcycle (e.g. engine control unit, throttle valves, clutch)

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

- Do not make any modifications.◀

Observe checklist

- Use the following checklist to check your motorcycle at regular intervals.

Always before riding off

- Check operation of the brake system.
- Check operation of the lighting and signal system.
- Checking clutch function (▶▶▶ 139).

- Check tire tread depth (▮▮▮ 142).
- Checking tire pressure (▮▮▮ 141).
- Check secure hold of cases and luggage.

At every third refueling stop

- without Dynamic ESA^{OE}
 - Adjuster for spring preload, rear (▮▮▮ 93).
 - Adjusting damping on rear wheel (▮▮▮ 94).◀
- with Dynamic ESA^{OE}
 - Setting suspension compliance (▮▮▮ 70).◀
 - Check engine oil level (▮▮▮ 134).
 - Check front brake pad thickness (▮▮▮ 136).
 - Check rear brake pad thickness (▮▮▮ 136).

- Checking front brake fluid level (▮▮▮ 137).
- Checking rear brake fluid level (▮▮▮ 138).
- Checking coolant level (▮▮▮ 139).

Starting

Starting engine

- Switch on the ignition.
 - » Pre-Ride-Check is carried out. (▮▮▮ 102)
 - » ABS self-diagnosis is performed. (▮▮▮ 102)
- without riding modes Pro^{OE}
 - » ASC self-diagnosis in progress. (▮▮▮ 103)◀
- with riding modes Pro^{OE}
 - » DTC self-diagnosis is performed. (▮▮▮ 104)◀
- Engage neutral, or pull back clutch lever if a gear is engaged.

NOTICE

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

- In the case of cold start or under cold temperatures: Pull back clutch lever.



- Press starter button **1**.
 - » Engine starts.

» If the engine fails to start, the troubleshooting table in the chapter "Technical Data" may provide assistance (➡ 188)

Recharge the battery before you attempt to start the engine again, or use jumper cables:

- Charging connected battery (➡ 157).
- Jump-starting (➡ 155).

NOTICE

The starting attempt is automatically interrupted if battery voltage is too low.◀

Pre-Ride-Check

When the ignition is switched on, the instrument cluster performs a test routine on the indicator and warning lights - this is the "Pre-Ride-Check." Starting the engine before the test routine is completed will cancel the remainder of the routine.

Phase 1

All indicator and warning lights are switched on.

Phase 2

The universal warning light changes from red to yellow.

Phase 3

The previously activated indicator and warning lights are now switched off consecutively in reverse order.

If one of the indicator and warning lights did not turn on:

- Have the malfunction corrected as soon as possible at an authorized service facility, preferably an authorized BMW Motorrad Retailer.

ABS self-diagnosis

The self-diagnosis routine checks whether the BMW Motorrad Integral ABS is ready for operation. The self-diagnosis routine

launches automatically when you switch on the ignition.

Phase 1

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



ABS indicator light flashes.

Phase 2

» Check wheel sensors while starting off.



ABS indicator light flashes.

ABS self-diagnosis completed

» The ABS indicator and warning light goes out.



ABS self-diagnosis routine not completed

ABS is not available, as the self-diagnosis routine was not completed. (The motorcycle must reach a specified minimum speed before the system can check operation of the wheel speed sensors: 3 mph (5 km/h))

If an ABS error is displayed after the ABS self-diagnosis is completed:

- It remains possible to continue riding. Bear in mind that neither the ABS function nor the integral function is available.
- Have the malfunction corrected as soon as possible at an authorized service facility, preferably an authorized BMW Motorrad Retailer.

ASC self-diagnosis

– without riding modes Pro^{OE}

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

Phase 1

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



ASC indicator and warning light flashes slowly.

Phase 2

» Checking the diagnosable system components while the motorcycle is moving.



ASC indicator and warning light flashes slowly.

ASC self-diagnosis completed

» The ASC indicator and warning light goes out.

- Check the display of all indicator and warning lights.



ASC self-diagnosis routine not completed

ASC is not available because the self-diagnosis routine was not completed. (The motorcycle must reach a specified minimum speed before the system can check operation of the wheel sensors: min 3 mph (min 5 km/h))

If an ASC error is displayed after the ASC self-diagnosis is completed:

- It remains possible to continue riding. It must be noted that the ASC function is not available.

- Have the malfunction corrected as soon as possible at an authorized service facility, preferably an authorized BMW Motorrad Retailer.

DTC self-diagnosis

– with riding modes Pro^{OE}

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

Phase 1

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



DTC indicator and warning light flashes slowly.

Phase 2

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



DTC indicator and warning light flashes slowly.

DTC self-diagnosis completed

- » The DTC symbol is no longer displayed.
- Check the display of all indicator and warning lights.



DTC self-diagnosis not completed

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

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

- It remains possible to continue riding. It must be noted

that the availability of the DTC function is restricted or it is not available at all.

- Have the malfunction corrected as soon as possible at an authorized service facility, preferably an authorized BMW Motorrad Retailer.

Running in

Engine

- While running in the motorcycle, vary the throttle opening and engine-speed range frequently; avoid driving for long periods at a constant speed.
- Choose curvy, slightly hilly sections of road if possible.
- Observe the engine run-in speeds.



Engine break-in speeds

<5000 min⁻¹ (Odometer reading 0...621 miles (0...1000 km))



Engine break-in speeds

no full throttle (Odometer reading 0...621 miles (0...1000 km))

- Observe mileage, after which the running-in check should be performed.



Mileage until running-in check

311...746 miles (500...1200 km)

Brake pads

New brake pads must be run in before they achieve their optimum friction force. This initial reduction in braking efficiency can be compensated for by exerting greater pressure on the brake levers.



WARNING

New brake pads

Extension of the braking distance, accident hazard

- Brake early.◀

Tires

New tires have a smooth surface. This must be roughened by riding in a restrained manner at various heel angles until the tires are run in. This running in procedure is essential if the tires are to achieve maximum grip.



WARNING

Loss of adhesion of new tires on wet roads and at extreme angles

Accident hazard

- Always think well ahead and avoid extreme angles.◀

Off-road riding

For off-road riding

Rims



ATTENTION

Heavier off-road use than riding on unpaved roads

Damage to the standard cast aluminum rims

- For heavier offroad use, use the cross-spoke wheels available as optional equipment.◀

After riding off-road

BMW Motorrad recommends the following after riding off-road:

Tire pressure



When driving off-road, lower tire pressure than riding on paved roads

Risk of accident due to poorer handling characteristics.

- Ensure proper tire inflation pressure. ◀

Brakes



Riding on unpaved or dirty roads

Delayed braking effect due to dirty brake discs and brake pads

- Brake early until the brakes are clean again. ◀



Riding on unpaved or dirty roads

Increased brake pad wear

- Check the brake pad thickness more often and replace the brake pads sooner. ◀

Spring preload and damping



Modified values for spring preload and spring strut damping when riding off-road

Poorer handling characteristics on paved roads

- Set correct spring preload and correct spring strut damping before leaving off-road terrain. ◀

Rims

BMW Motorrad recommends checking the rims for possible damage after riding off-road.

Air cleaner element



Dirty air filter element

Engine damage

- When driving in dusty terrain, check air filter insert for soiling at short intervals and clean or replace if necessary. ◀

Use under very dusty conditions (deserts, savannas, etc.) requires the use air cleaner elements specially developed for these kinds of applications.

Shifting gears

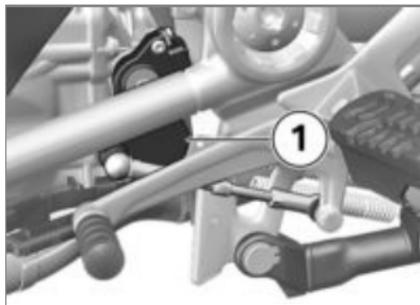
– with gearshift assistant Pro^{OE}

Pro shift assistant



When changing gear using the Pro Gear-shift Assistance function, the cruise-control system

is automatically deactivated for safety reasons. ◀



- Gears are engaged at the foot gearshift lever using the standard procedure.
- » The gearshift assistant provides help with upward and downward gear shifts without the clutch or the accelerator having to be operated.
- This is not an automatic transmission.
- The rider is an essential part of the system and makes the decision as to when to change gear.

- The sensor **1** on the gear-lever shaft detects the intention to change gear and initiates gear-shift assistance.
- » When driving at constant speed in low gears at high revs, changing gear without using the clutch can result in major load change reactions.
- BMW Motorrad recommends only changing gear using the clutch in such situations.
- The Pro gearshift assistant should not be used in the range of the of the rev limiter.
- » No shifting support is provided in the following situations:
 - With the clutch operated.
 - If the gear lever is not in the zero position
 - When upshifting with the throttle closed (coasting overrun mode) or when decelerating.
- To be able to make another gear change using the gearshift assistant Pro, the gearshift

- lever must be fully released after the first gear change.
- » More detailed information on the gearshift assistant Pro can be found in the "Technology in detail" chapter:
- » Pro shift assistant (▶ 128)

Brakes

How do you achieve the shortest stopping distances?

The dynamic load distribution between the front and rear wheel changes during braking. The heavier you brake, the greater the weight transfer to the front wheel. Increases in the load at an individual wheel are accompanied by a rise in the effective braking force that the wheel can provide.

To achieve the shortest possible braking distance, the front brake must be applied quickly and with

increasing force. This procedure provides ideal exploitation of the extra weight transfer to the front wheel. The clutch should also be disengaged at the same time. With the "forced braking" often practiced in which the brake pressure is generated as quickly as possible and with great force, the dynamic load distribution cannot follow the increased deceleration and the braking force cannot be completely transferred to the road surface.

Locking up of the front wheel is prevented by the BMW Motorrad Integral ABS.

Descending mountain passes



WARNING

Braking only with the rear-wheel brake when descending mountain passes

Reduced of braking action, destruction of the brakes caused by overheating

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

Wet, soiled brakes

Moisture and dirt on the brake rotors and the brake pads result in a decrease in the braking action.

Delayed or poorer braking action must be expected in the following situations:

- When driving in the rain and through puddles.
- After washing the vehicle.
- When driving on roads spread with salt.
- After working on the brakes due to oil or grease residues.
- When driving on soiled roads or offroad.



WARNING

Poorer braking action due to moisture and dirt

Accident hazard

- Brake until brakes are dry or clean; clean if necessary.
- Brake early until the full braking action is available again. ◀

ABS Pro

– with riding modes Pro^{OE}

Physical riding limits



WARNING

Braking in curves

Danger of falling despite ABS Pro

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

ABS Pro is available in all riding modes except for Enduro PRO.

Falling cannot be excluded

Although ABS Pro represents valuable support and an enormous safety advantage for the rider when braking in the inclined position, it by no means redefines the physical riding limits. It is still possible to exceed those limits through misjudgments or riding errors. In extreme cases this may result in a fall.

Use on public roads

ABS Pro helps make riding your motorcycle on public roads even safer. When braking due to unexpected hazards in curves, locking-up and slipping of the wheels is prevented within the scope of the physical riding limits.

NOTICE

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

Parking your motorcycle

Side stand

- Switch off engine.

ATTENTION

Poor ground conditions in area of stand

Component damage cause by tipping over

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

ATTENTION

Loading of the side stand with additional weight

Component damage cause by tipping over

- Do not sit on the motorcycle when it is parked on the side stands. ◀
- Fold out side stand and park motorcycle.
- Turn handlebars to the left.
- On slopes point the motorcycle uphill and engage 1st gear.

Center stand

- Switch off engine.

ATTENTION

Poor ground conditions in area of stand

Component damage cause by tipping over

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

 **ATTENTION**
Center stand folds if subject to sharp movements.

Component damage cause by tipping over

- Do not sit on the motorcycle while it is resting on the center stand.◀
- Fold out center stand and jack up motorcycle.
- On a grade, the motorcycle should always face uphill; select 1st gear.

Refueling

Fuel specifications Requirement

For optimal fuel economy, the gasoline should be sulfur-free or very low in sulfur content.

 **ATTENTION**
Refueling with leaded fuel

Damage to catalytic converter

- Do not refuel with leaded gasoline or gasoline with metallic additives, e.g. manganese or iron.◀

 **ATTENTION**
Use of Ethanol E85 as fuel

Damage to the engine and fuel supply

- Do not refuel with E85, i.e. fuel with an ethanol content of 85 %, or with Flex Fuel.◀
- Fuels with a maximum ethanol content of 10 %, meaning "E10," may be used for refueling. Ethanol should satisfy the quality standards for the US (ASTM 4806-xx) and Canada (CGSB-3.511-xx). "xx" - com-

ply with the current standard in each case.



Recommended fuel quality

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



Alternative fuel quality

Regular unleaded (restrictions with regard to power and consumption.) (max. 10 % ethanol, E10)
87 AKI (91 ROZ/RON)
87 AKI

» If the quality is lower, a conversion is necessary. Have your motorcycle programmed accordingly beforehand by your authorized BMW Motorrad retailer.

Refueling procedure

WARNING

Fuel is highly flammable

Fire and explosion hazard

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

ATTENTION

Component damage

Component damage due to over-filled fuel tank

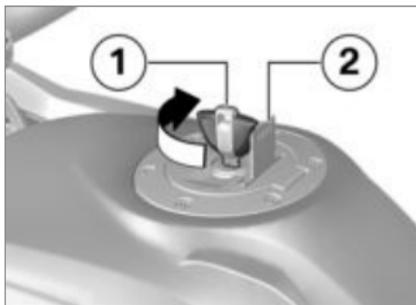
- If the fuel tank is overfilled, the excess fuel will flow into the carbon canister and lead to component damage there.
- Only fill the fuel tank to the lower edge of the fuel filler neck.◀

ATTENTION

Contact of fuel and plastic surfaces

Damage to surfaces (become unattractive or cloudy)

- Immediately clean plastic surfaces after contact with fuel.◀
- Place motorcycle on center stand, ensuring that it is resting on a firm and level support surface.



- Open protective cap **2**.
- Unlock fuel-tank cap **1** with ignition key by turning clockwise, then swivel it up.



- Do not fill the tank past the bottom edge of the filler neck.

NOTICE

When refueling after running on fuel reserve, the resulting total fuel quantity must be greater than the fuel reserve, so that the new filling level is detected and the fuel warning light is switched off.◀

NOTICE

The "usable fuel quantity" specified in the technical data is the fuel quantity, which can be re-

fueled if the fuel tank was completely emptied, i.e., if the engine dies off due to lack of fuel. ◀



Usable fuel quantity

Approx. 5.3 gal (Approx. 20 l)



Reserve fuel quantity

Approx. 1.1 gal (Approx. 4 l)

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

Refueling procedure

– with Keyless Ride^{OE}

Requirement

Steering lock is unlocked.



WARNING

Fuel is highly flammable

Fire and explosion hazard

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



WARNING

Escaping of fuel due to expansion under exposure to heat with overfilled fuel tank

Accident hazard

- Do not overfill the fuel tank. ◀



ATTENTION

Contact of fuel and plastic surfaces

Damage to surfaces (become unattractive or cloudy)

- Immediately clean plastic surfaces after contact with fuel. ◀
- Place motorcycle on center stand, ensuring that it is resting on a firm and level support surface.

– with Keyless Ride^{OE}

- Switch off ignition (▶▶▶ 53).



NOTICE

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



After-running period for opening the fuel filler cap

2 min

- » There are **2 ways** to open the fuel filler cap:
- Within the run-on time.
 - After the run-on time expires.

Version 1

– with Keyless Ride^{OE}

Requirement

Within the run-on time



- Slowly pull lug **1** of fuel filler cap upward.
- » Fuel filler cap unlocked.
- Open fuel filler cap completely.

Version 2

– with Keyless Ride^{OE}

Requirement

After run-on time expires

- Bring radio-operated key into reception range.
- Slowly pull up lug **1**.
- » The indicator light for the radio-operated key flashes as

long as the radio-operated key is being searched for.

- Slowly pull lug **1** of fuel filler cap upward again.
- » Fuel filler cap unlocked.
- Open fuel filler cap completely.



- Refuel with a fuel meeting the specifications above, continuing until fuel is no higher than lower edge of filler neck.

NOTICE

When refueling after running on fuel reserve, the resulting total fuel quantity must be greater than the fuel reserve, so that the

new filling level is detected and the fuel warning light is switched off. ◀

NOTICE

The "usable fuel quantity" specified in the technical data is the fuel quantity, which can be refueled if the fuel tank was completely emptied, i.e., if the engine dies off due to lack of fuel. ◀

 Usable fuel quantity

Approx. 5.3 gal (Approx. 20 l)

 Reserve fuel quantity

Approx. 1.1 gal (Approx. 4 l)

- Press fuel filler cap of fuel tank down firmly.
- » Fuel filler cap audibly engages.
- » Fuel filler cap automatically locks after run-on time expires.

- » The engaged fuel filler cap locks immediately when the steering lock is locked or during starting.

Securing motorcycle for transport

- Protect all component surfaces against which straps are routed against scratching. For example, use adhesive tape or soft cloths.



ATTENTION

Motorcycle tips to the side when raising

Component damage cause by tipping over

- Secure the motorcycle against tipping to the side, preferably with the assistance of a second person.◀
- Push motorcycle onto transport surface, and do not place on side stand or center stand.



ATTENTION

Pinching of components

Component damage

- Do not pinch components, e.g. brake lines or wiring harnesses.◀
- Fasten front straps to both sides of the handlebars.
- Guide straps through leading link and then tension.



- Secure and tighten the luggage straps at the rear on the brackets for the passenger footrests on both sides.
- Tension all straps evenly; the motorcycle should be pulled down against its springs with the suspension compressed as much as possible.

Technology in detail

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General notes

More information on the topic of technology is available at:

bmw-motorrad.com/technology

Antilock Brake System (ABS)

Partially integral brake

Your motorcycle is equipped with a partially integral brake configuration. Both front and rear brakes are applied simultaneously when you pull the handbrake lever.

The footbrake lever acts only on the rear brake.

The BMW Motorrad Integral ABS adapts the braking force distribution between the front and rear wheel brake to the loading of the motorcycle during braking with ABS control.



ATTENTION

Attempt at a burn-out despite integral function

Damage to rear-wheel brake and clutch

- Do not perform burn-out. ◀

How does ABS work?

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

If the maximum transferable braking force is exceeded when the rider increases the brake pressure, the wheels begin to lock and driving stability is lost, and a fall can result. Before this sit-

uation occurs, ABS is activated and the brake pressure is adjusted to the maximum transferable braking force. This enables the wheels to continue to turn and maintains driving stability regardless of the road surface condition.

What happens when rough roads are encountered?

Bumpy or rough roads can briefly lead to a loss of contact between the tires and the road surface, until the transferable braking force is reduced to zero. If the brakes are applied in this situation, the ABS must reduce the brake pressure to ensure driving stability when contact to the road is restored. At this point, the BMW Motorrad Integral ABS must assume extremely low friction coefficients (gravel, ice, snow) so that the road wheels

turn in every imaginable case and the driving stability is ensured. After detecting the actual conditions, the system adjusts the optimum brake pressure.

How is the BMW Motorrad Integral ABS noticeable to the rider?

If the ABS system must reduce the braking forces due to the conditions described above, then vibrations can be felt at the handbrake lever.

If the handbrake lever is pulled, then braking pressure is built up at the rear wheel with the integral function. If the footbrake lever is first actuated after this, the brake pressure already built up can be felt earlier than the counter-pressure, than when the footbrake lever is actuated before or together with the handbrake lever.

Lifting off rear wheel

However, during extremely heavy and rapid deceleration it is possible that the BMW Motorrad Integral ABS will not prevent the rear wheel from lifting off the ground. In these cases, the motorcycle can also flip end over end.



Lifting off of the rear wheel due to heavy braking

Accident hazard

- When braking heavily, bear in mind that the ABS control cannot always be relied on to prevent the rear wheel from lifting off the ground. ◀

What are the design characteristics of the BMW Motorrad Integral ABS?

The BMW Motorrad Integral ABS ensures driving stability on any surface within the limits of driving physics. The system is not optimized for special requirements resulting under extreme weather conditions offroad or on the racetrack. Handling should be adopted to driving skills and road conditions.

Special situations

To detect the tendency of the wheels to lock up, the speeds of the front and rear wheel are compared. If implausible values are detected over a longer period of time, the ABS function is deactivated for safety reasons and an ABS error is indicated. A self-diagnosis routine must be com-

pleted before the error will be displayed.

Apart from problems with the BMW Motorrad ABS, unusual riding conditions can also cause a fault message to be generated:

- Warm-up on the center or auxiliary stand at idle or with gear engaged.
- Rear wheel locked-up for a longer period of time by engine brake, e.g. when riding downhill on slippery surfaces.

Should a fault code occur due to an unusual driving condition, the ABS function can be reactivated by switching the ignition off and then on again.

How important is regular maintenance?



WARNING

Failure to have maintenance performed on the brake system regularly.

Accident hazard

- To ensure that the ABS is in a properly maintained condition, it is vital that the specified service intervals be observed.◀

Reserves for safety

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



WARNING

Braking in curves

Risk of accident despite ABS

- The rider is always responsible for adapting his/her driving style.
- Do not reduce the additional safety function with careless riding or unnecessary risks.◀

Further development of ABS to ABS Pro

– with riding modes Pro^{OE}

In the past, the BMW Motorrad ABS system provided for a very high level of safety while braking during straight-ahead riding. Now ABS Pro also offers increased safety even when braking in curves. ABS Pro prevents locking-up of the wheels even in case of rapid brake actuation. ABS Pro reduces abrupt changes in steering forces, especially during panic braking, and therefore decreases the risk of unwanted wheelies occurring.

ABS control

From a technical standpoint, ABS Pro adjusts the ABS control to the angle of inclination of the motorcycle in dependence on the respective riding situation. Signals for the roll and yaw rate and the lateral acceleration are used to determine the inclination of the motorcycle.

With an increasing inclination, the braking pressure gradient is increasingly limited at the start of braking. This results in a slower pressure buildup. In addition, the pressure modulation in the range of the ABS control is more uniform.

Advantages for the rider

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

Automatic Stability Control (ASC)

– without riding modes Pro^{OE}

How does ASC work?

BMW Motorrad ASC compares the wheel speeds of the front and rear wheels. From the speed difference the slip, and with it the stability reserves on the rear wheel are determined. When a slip limit is exceeded, the engine torque is adapted by the engine management system.

What are the design characteristics of the BMW Motorrad ASC?

BMW Motorrad ASC is designed as an assistance system for the rider and for riding on public roads. The extent to which the rider affects ASC control can be considerable (weight shifts when cornering, loose luggage on the

motorcycle), especially when approaching the limits imposed by the laws of physics.

The Enduro riding mode should be activated for off-road riding. In this mode the controlling intervention by the ASC is carried out later, enabling controlled drifting. The system is not optimized for the special conditions encountered under extreme weather during off-road and race-track use. BMW Motorrad ASC can be switched off under these conditions.



WARNING

Risky riding style

Accident hazard despite ASC

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

Dynamic Traction Control (DTC)

– with riding modes Pro^{OE}

How does Traction Control function?

Traction Control is available in two versions

- **Without** taking the angle into account: Automatic Stability Control ASC
- ASC is a rudimentary function intended to prevent falls.
- **With** taking the angle into account: Dynamic Traction Control DTC
- The additional inclined position and acceleration information enables the DTC to make more precise and comfortable adjustments.

Traction Control compares the wheel circumferential speeds of the front and rear wheels. The slip, and with it the stability re-

serves at the rear wheel, are determined from the speed difference. The engine management system adapts the engine torque when the slip limit is exceeded.



WARNING

Risky riding style

Risk of accident despite DTC

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

Special situations

As lean angles increase, acceleration potential is also progressively restricted by the laws of physics. This can result in reduced acceleration when coming out of very tight curves.

To detect spinning or slipping away of the rear wheel, among other things the speeds of the front and rear wheel are compared and the angle with DTC compared to ASC is taken into account.

– with riding modes Pro^{OE}

If the value for the angle are detected to be implausible for a long period, a replacement value is used for the angle or the DTC function is deactivated. In these cases, a DTC error is displayed. A self-diagnosis routine must be completed before the error will be displayed.

Under the following unusual riding conditions, BMW Motorrad Traction Control may be deactivated automatically.

Unusual riding conditions:

- Driving on the rear wheel (wheelie) for a longer period.

- Rear wheel spinning in place with front brake engaged (burn out).
- Heating up on an auxiliary stand at idle speed or with gear engaged.

If the coding plug is not in use, turning the ignition off and on again and then riding the motorcycle at a minimum speed reactivates the DTC after a fault.



Minimum speed for DTC activation

min 6 mph (min 10 km/h)

If the front wheel loses contact with the ground under extreme acceleration, the ASC or DTC function reduces the engine torque in the RAIN and ROAD riding modes until the front wheel makes contact with the ground again.

In the riding modes DYNA, DYNA PRO and Enduro, the front wheel lift-off detection permits brief wheelies.

The front wheel lift-off detection is switched off in riding mode Enduro PRO.

BMW Motorrad recommends that you respond to the front wheel lifting off by twisting back the throttle grip somewhat to return to a stable driving condition as quickly as possible.

On a slippery surface, the throttle grip should never be suddenly twisted back completely unless the clutch is disengaged at the same time. The engine braking torque can cause the rear wheel to slip, resulting in an unstable driving state. This case cannot be controlled by BMW Motorrad DTC.

Dynamic ESA

– with Dynamic ESA^{OE}

Riding position compensation

The electronic chassis and suspension adjustment Dynamic ESA can automatically adapt your motorcycle to the load. If the spring preload is set to AUTO, the rider does not need to worry about the load setting.

When driving off and while driving, the system monitors the compression at the rear wheel and corrects the spring preload so that the correct riding position is adjusted. The damping is also adapted automatically to the load. Using leveling sensors, Dynamic ESA detects movements of the chassis and suspension and responds to them by adapting the EDC valves. As a result, the chassis

and suspension is adjusted to the conditions of the surface.

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

Adjustment options

Damping modes

- ROAD: damping for comfortable riding on roads
- DYNA: damping for dynamic riding on roads
- ENDURO: damping for off-road riding

Load settings

- AUTO: active riding position compensation with automatic adjustment of the spring preload and damping action
- MIN: minimum spring preload
- MAX: maximum spring preload (for off-road use)
- The rider can select the spring preload settings MIN and MAX but they can not be modified.

The riding position compensation function is inactive in the settings MIN and MAX.

Riding mode

Selection

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

- RAIN
- ROAD (standard mode)
- with riding modes Pro^{OE}
- DYNA
- Enduro

With the coding plug installed, the riding modes DYNA PRO and Enduro PRO replace the riding modes DYNA and Enduro:

- Enduro PRO
- DYNA PRO

For each of these riding modes, adapted settings for the ABS, ASC/DTC systems and for the throttle response are available.

- with Dynamic ESA^{OE}

The Dynamic ESA alignment depends on the selected riding mode as well.

ABS and/or ASC/DTC can be switched off in each riding mode. The following explanations always refer to the riding safety systems that are switched on.

Throttle response

- In RAIN and Enduro riding modes: restrained
- In ROAD and Enduro PRO riding modes: direct
- In DYNA and DYNA PRO riding modes: dynamic

ABS

- The rear wheel lift-off detection is active in all driving modes.
- In RAIN, ROAD, DYNA and DYNA PRO riding modes, the ABS is matched to road operation.
- In Enduro riding mode, ABS is matched to off-road operation using road tires.
- In Enduro PRO riding mode, ABS control is not applied to the rear wheel if the foot-brake lever is actuated. ABS is aligned to off-road operation using massive-bar tires.
- with riding modes Pro^{OE}
- In RAIN, ROAD, DYNA and DYNA PRO riding modes, ABS Pro is fully available. The inclination the motorcycle has when braking in curves is reduced to a minimum.
- In Enduro riding mode, ABS Pro is only available when

there is good road friction. Compared to the ROAD riding mode, there is reduced support; instead, this mode is designed to achieve the highest braking effect.

- In Enduro PRO riding mode, ABS Pro is not available.

– without riding modes Pro^{OE}

ASC

- The front wheel lift-off detection is active in all driving modes.
- ASC is matched to road operation.
- In ROAD riding mode, ASC offers high driving stability and maximum driving stability in RAIN riding mode.

– with riding modes Pro^{OE}

DTC

Tires

- In RAIN, ROAD, DYNA and DYNA PRO riding modes, DTC is matched to road operation using road tires.
- In Enduro riding mode, DTC is matched to off-road operation using road tires.
- In Enduro PRO riding mode, DTC is matched to off-road operation using knobby tires.

Driving stability

- Intervention of the DTC in the RAIN riding mode occurs at an early enough stage to achieve maximum riding stability.
- In the ROAD riding mode, the intervention of the DTC occurs later than in the RAIN riding mode. Slipping of the rear wheel is avoided whenever possible.

- In the RAIN and ROAD riding modes, the front wheel is prevented from lifting off.
- In the DYNA and DYNA PRO riding modes, the DTC intervenes later than in the ROAD riding mode so that minor drifts at the end of curves and brief wheelies are possible.
- In the DYNA PRO riding mode, DTC can be set differently (▣➔ 72) via SETUP MODE.
- In ENDURO riding mode, DTC intervenes even later and is matched to off-road operation so that even longer drifts and brief wheelies at the end of curves are also possible.
- In Enduro PRO riding mode, DTC control assumes that knobby tires are being used in off-road conditions. Longer wheelies and wheelies in lower inclined positions are permitted. The front wheel lift-off detection is turned off, whereby

in extreme cases flipping over backwards is possible!

- In Enduro PRO riding mode, DTC can be set differently (▣➔ 72) via SETUP MODE.

Changing setting

The riding modes can only be changed while driving under the following condition:

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

This operating mode is active when the motorcycle is stopped with the ignition switched ON. As an alternative, the following steps must be carried out:

- Turn back throttle grip.
- Do not actuate brake lever.

First the desired riding mode is preselected. The new selection is not activated until the specified

conditions are present in all affected systems.

The selection menu does not disappear in the display until the riding mode has been switched over.

Tire pressure control (RDC/TPC)

- with Tire Pressure Monitor (TPM)^{OE}

Operation

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

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



Minimum speed for the transmission of the RDC/TPC measured values:

min 19 mph (min 30 km/h)

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



Transmission time of the measured values after vehicle standstill:

min 15 min

If an RDC/TPC control unit is installed but the wheels have no sensors, a fault message is generated.

Tire inflation pressure ranges

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

- Inflation pressure within the permissible tolerance.
- Inflation pressure at the limits of the permissible tolerance.
- Inflation pressure outside the permissible tolerance.

Temperature compensation

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



The tire pressures are shown in the multifunction display with temperature compensation and are always based on the following tire air temperature:

68 °F (20 °C)

Tire pressure gages at gas stations do not make any adjustment for the air temperature, the tire pressure indicated depends on the temperature of the air in the tire. As a result, in most cases the values displayed there do not match the values shown in the multifunction display.

Tire pressure adjustment

Compare the RDC/TPC value in the multifunction display with the value on the back cover of the Rider's Manual. The difference between the two values must be compensated with the tire

inflation pressure tester at the filling station.

 Example
According to the rider's manual, the tire pressure should have the following value:
36.3 psi (2.5 bar)
The following value is shown in the multifunction display:
33.4 psi (2.3 bar)
Missing is thus:
2.9 psi (0.2 bar)
The tester at the filling station shows:
34.8 psi (2.4 bar)
To produce the correct tire pressure, this must be increased to the following value:
37.7 psi (2.6 bar)

Shift assistant

- with gearshift assistant Pro^{OE}

Pro shift assistant

Your motorcycle is equipped with a Pro gearshift assistant originally developed for racing but now specially adapted for touring use. It allows you upshift and downshift under almost any load conditions and in virtually all engine-speed ranges without operating the clutch or accelerator.

Benefits

- 70-80 % of all gear changes can be performed without using the clutch.
- Less movement between pilot and pillion due to shorter gear-change intervals.
- Throttle does not have to be closed when changing gear under acceleration.

- During deceleration and downshifts (throttle plate closed) the system blips the throttle to obtain the correct engine speed.
- Shifting times are faster than when the clutch is used to change gears.

For the system to detect the rider's intention to change gear, the previously stationary gear lever must be moved in the desired direction against the force of the spring and with a certain amount of "overtravel" at a standard to rapid travel speed, and then maintained in this position until execution of the shift is completed. No additional increase in shifting force is necessary during the gear shifting process. After the gear change is completed, the gear lever must be fully released before the Pro gearshift assistant can execute a new gear change. The load fac-

tor (throttle grip position) should remain constant both prior to and during execution of shifts using the Pro gearshift assistant. Changing the position of the throttle grip while the shift is in progress can lead to cancellation of the function and/or shifting errors. The Pro gearshift assistant does not provide support when gear changes are made using the clutch.

Downshifts

- Downshifts are assisted up to the speed at which the engine reaches maximum rpm in the gear to be engaged. Over-revving is thus prevented.

 Maximum engine speed
max 9000 min ⁻¹

Upshifts

- Upshifting is supported until the idling speed is reached in the target gear.
- This prevents the idling speed from being dropped below.

 Idle speed
1150 min ⁻¹ (Engine at operating temperature)

Hill Start Control

- with Hill Start Control^{OE}

Function of the Hill Start Control

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

Hill Start Control is activated, the pressure in the rear brake system is built up so that the motorcycle remains in position on an incline.

Effects of the holding pressure on the behavior when driving off

- If a low brake pressure is used for holding, only a small amount of holding pressure is built up. The brakes release quickly when driving off. Driving off more softly is therefore possible. Additional turning of the throttle grip is hardly required.
- If a higher brake pressure is used for holding, a higher amount of holding pressure is built up. The brakes release a bit more slowly when driving off. Since more torque is required for driving off in this case, an additional turning of the throttle grip is necessary.

Behavior when the vehicle is rolling or slipping

- If the vehicle rolls with the Hill Start Control active, the holding pressure is increased.
- If the rear wheel slips, the brake will be released again after approx. 1 m. This prevents the vehicle from rolling with the rear wheel blocked.

Releasing the brake when stopping the engine

The Hill Start Control is deactivated if the engine is stopped using the emergency off switch or if the side stand is folded out. In addition to the indicator and warning lights, the rider is to be made aware about the deactivation of the Hill Start Control by the following behavior:

Brake warning jerk

- The brake is released briefly and immediately activated again.
- This causes a jerk that the rider can feel.
- The brake is released slowly.
- The vehicle is unbraked.
- The rider must brake the vehicle manually.



NOTICE

When the ignition is switched off, the holding pressure is built up immediately and without brake warning jerk.◀

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General instructions

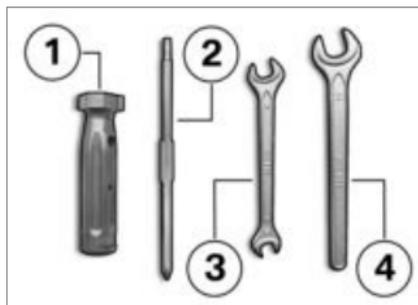
The "Maintenance" chapter describes work involving the checking and replacement of wear parts that can be performed with a minimum of effort.

If special tightening torques are to be taken into account for assembly, these are listed. An overview of all required tightening torques is contained in the chapter "Technical Data".

Further information about maintenance and repair work can be obtained on DVD through your authorized BMW Motorrad retailer.

Special tools and thorough specialized knowledge are required to carry out some of the work. If you are in doubt, consult an authorized workshop, preferably your authorized BMW Motorrad retailer.

Tool kit

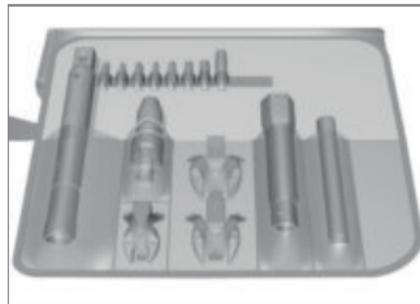


- 1** Screwdriver handle
 - Use with screwdriver insert
 - Topping up engine oil (►► 135).
- 2** Reversible screwdriver insert
 - Phillips PH1 and Torx T25
 - Remove light sources in front and rear turn indicators (►► 153).
 - Remove battery cover (►► 158).
- 3** Open-ended wrench
 - Wrench size: 8/10 mm

- 3** – Removing battery (►► 158).
- 4** Open-ended wrench
 - Wrench size: 14
 - Adjusting mirror arm (►► 90).

Service tool kit

– with service tool set^{OA}



For more extensive service operations (such as wheel removal and installation), BMW Motorrad has put together a service tool kit matched to your motorcycle. You can purchase this tool kit from

your authorized BMW Motorrad retailer.

Front wheel stand

Mount front wheel stand

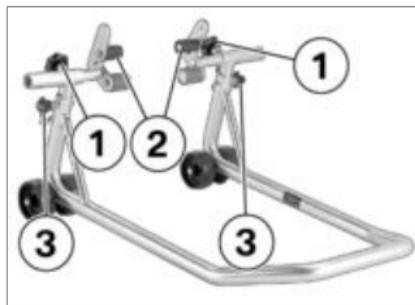
ATTENTION

Use of the BMW Motorrad front wheel stand without an additional center or auxiliary stand

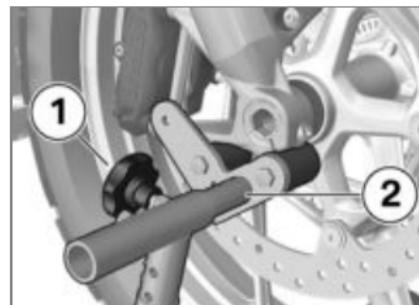
Component damage cause by tipping over

- Place the motorcycle on the center stand or an auxiliary stand before lifting it with the BMW Motorrad front wheel stand.◀
- Place motorcycle on center stand, ensuring that it is resting on a firm and level support surface.
- Use basic stand with front wheel mount. The base stand and its accessories are avail-

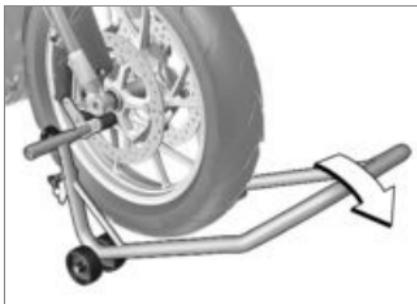
able through your authorized BMW Motorrad retailer.



- Loosen screws **1**.
- Push two mounts **2** outward, continuing until front suspension fits between them.
- Use locating pins **3** to set front wheel stand to desired height.
- Center front wheel stand relative to front wheel and push it against front axle.



- Align two mounts **2** so that front suspension rests securely on them.
- Tighten screws **1**.



ATTENTION

Center stand retracts if motorcycle is lifted too high.

Component damage cause by tipping over

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

Engine oil

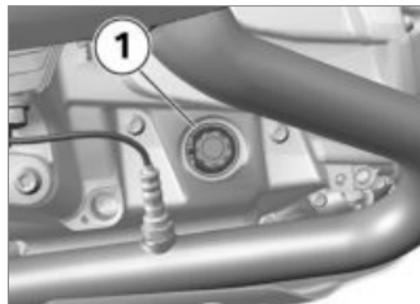
Check engine oil level

ATTENTION

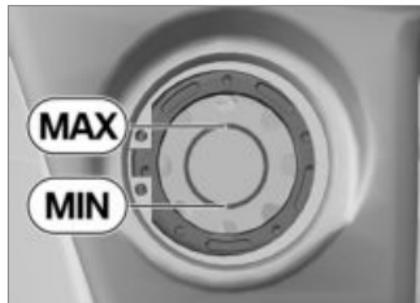
Misinterpretation of the oil filling quantity, as the oil level is temperature-dependent (the higher the temperature, the higher the oil level)

Engine damage

- Only check the oil level after a longer journey or when the engine is warm.◀
- Switch off engine at operating temperature.
- Place motorcycle on center stand, ensuring that it is resting on a firm and level support surface.
- Wait five minutes to allow oil to drain to the oil pan.



- Read oil level in display **1**.



 Specified level of engine oil

between MIN- and MAX mark

If oil level is below MIN mark:

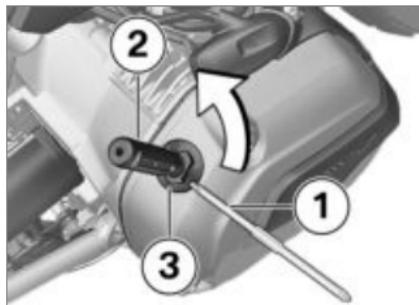
- Topping up engine oil (▣▶ 135).

If oil level is above MAX mark:

- Have oil level corrected at an authorized service facility, preferably an authorized BMW Motorrad retailer.

Topping up engine oil

- Park motorcycle, ensuring that support surface is firm and level.



- Wipe area around oil fill location to clean it.

- To be able to apply force more easily, insert the interchangeable screwdriver bit **1**, Torx end first, into the screwdriver handle **2** (from motorcycle toolkit).
- Locate specified tool from vehicle toolkit on oil fill location **3** and turn counterclockwise.
- Check engine oil level (▣▶ 134).



ATTENTION

Use of too little or too much engine oil

Engine damage

- Always make sure that the oil level is correct.◀
- Add engine oil up to specified level.



Engine oil, quantity for topping up

max 1 quarts (max 0.95 l) (Difference between MIN and MAX)

- Check engine oil level (▣▶ 134).
- Install the oil filler cover **3**.

Brake system

Check brake operation

- Actuate the handbrake lever.
 - » Pressure point must be clearly perceptible.
- Actuate the footbrake lever.
 - » Pressure point must be clearly perceptible.

If no clear pressure points are perceptible:



ATTENTION

Improper working on the brake system

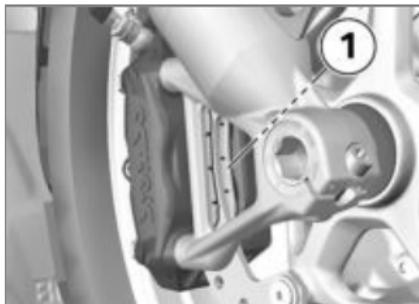
Endangering of the operating safety of the brake system

- Have all work on the brake system carried out by experts.◀
- Have the brakes checked at an authorized workshop, preferably

an authorized BMW Motorrad retailer.

Check front brake pad thickness

- Park motorcycle, ensuring that support surface is firm and level.



- Visually inspect left and right brake pads to determine their thickness. Viewing direction: between wheel and front suspension toward brake pads **1**.



Front brake-pad wear limit

0.04 in (1.0 mm) (Only friction material without carrier plate. Wear markings (grooves) must be clearly visible.)

If the wear indicators are no longer clearly visible:



WARNING

Dropping below the minimum pad thickness

Reduced braking action, damage to the brake

- In order to ensure the operating reliability of the brake system, make sure that the brake pads are not worn beyond their minimum thickness. ◀
- Have brake pads replaced at an authorized service facility, preferably an authorized BMW Motorrad retailer.

Check rear brake pad thickness

- Park motorcycle, ensuring that support surface is firm and level.



- Conduct a visual inspection of the brake pad thickness. Viewing direction: between splash guard and rear wheel toward brake pads **1**.



 Rear brake-pad wear limit

0.04 in (1.0 mm) (Only friction material without carrier plate.)

If wear limit is reached:

WARNING

Dropping below the minimum pad thickness

Reduced braking action, damage to the brake

- In order to ensure the operating reliability of the brake system, make sure that the brake

pads are not worn beyond their minimum thickness. ◀

- Have brake pads replaced at an authorized service facility, preferably an authorized BMW Motorrad retailer.

Checking front brake fluid level

WARNING

Insufficient brake fluid in the brake-fluid reservoir

Considerably reduced braking performance caused by air in the brake system

- Stop riding immediately until fault is rectified.
- Check brake fluid level regularly. ◀
- Make sure ground is level and firm and place motorcycle on its center stand.

- Move handlebars into straight-ahead position.



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

NOTICE

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



Front brake fluid level

Brake fluid, DOT4

The brake fluid level must not fall below the MIN mark. (Brake-fluid reservoir horizontal, motorcycle standing upright)

If brake fluid level falls below the approved level:

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

Checking rear brake fluid level

WARNING

Insufficient brake fluid in the brake-fluid reservoir

Considerably reduced braking performance caused by air in the brake system

- Stop riding immediately until fault is rectified.
- Check brake fluid level regularly. ◀
- Make sure ground is level and firm and place motorcycle on its center stand.



- Read brake fluid level at rear brake-fluid reservoir **1**.



NOTICE

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



Rear brake fluid level

Brake fluid, DOT4

The brake fluid level must not fall below the MIN mark. (Brake-fluid reservoir horizontal, motorcycle standing upright)

If brake fluid level falls below the approved level:

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

Clutch

Checking clutch function

- Pull back the clutch lever.
 - » Pressure point must be clearly perceptible.

If no clear pressure point can be felt:

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

Coolant

Checking coolant level

- Park motorcycle, ensuring that support surface is firm and level.

**CAUTION****Hot engine**

Burn hazard

- Maintain a safe distance from the hot engine.
- Do not touch the hot engine. ◀
- Read off coolant level on expansion tank **1**.

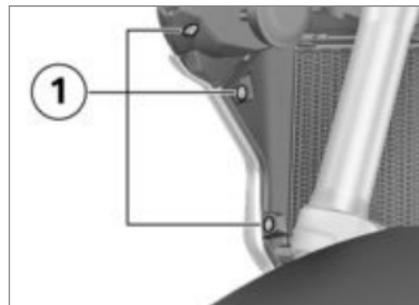


Required coolant level

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

If coolant level drops below approved level:

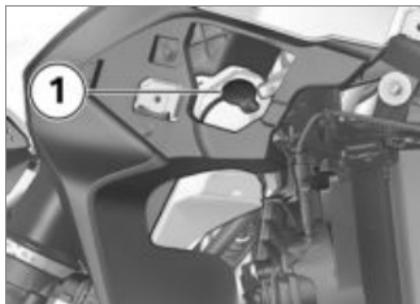
- Top up coolant (→ 140).

Topping up coolant

- Remove screws **1**.



- Remove screws **1**.
- Pull side trim panel **2** from the clamp **3** and remove.



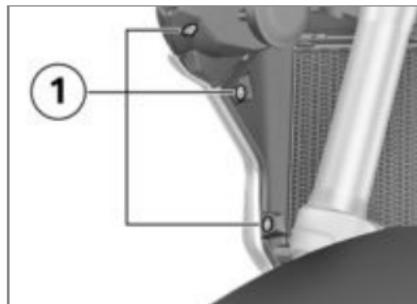
- Open cap **1**.
- Add coolant up to specified level.
- Checking coolant level (►► 139).
- Close cap of expansion tank.



- Insert side trim panel **2** into the slot **4**.
- Engage clamp **3**.



- Install screws **1**.



- Install screws **1**.

Tires

Checking tire pressure



WARNING

Incorrect tire inflation pressure

Poorer handling characteristic of motorcycle, reduction of tire service life

- Ensure proper tire inflation pressure.◀

**WARNING****Automatic opening of vertically installed valve inserts at high speeds**

Sudden loss of tire inflation pressure

- Use valve caps with rubber sealing ring and screw on firmly. ◀
- Park motorcycle, ensuring that support surface is firm and level.
- Check tire pressures against data below.



Tire pressure, front

36.3 psi (2.5 bar) (with tire cold)



Tire pressure, rear

42.1 psi (2.9 bar) (with tire cold)

If tire pressure is too low:

- Correct tire pressure.

Rims and tires**Checking rims**

- Park motorcycle, ensuring that support surface is firm and level.
- Subject wheel rims to visual inspection for defects.
- Have damaged rims checked and, if necessary, replaced by a specialist service facility, preferably an authorized BMW Motorrad retailer.

Check tire tread depth**WARNING****Riding with heavily worn tyres**

Risk of accident due to poorer rideability

- If necessary, replace the tyres before the legally specified minimum tread depth is reached. ◀
- Park motorcycle, ensuring that support surface is firm and level.
- Check tire tread depth in main tread grooves with wear indicators.

**NOTICE**

Tread wear marks are integrated into the main grooves on every tire. If the tire tread has worn down to the level of the marks, the tire is completely worn. The locations of the marks are indi-

cated on the edge of the tire, e.g. by the letters TI, TWI or by an arrow. ◀

When the minimum tread depth is reached:

- Replace the worn tires.

Checking spokes

– with cross spoke wheels^{OE}

- Park motorcycle, ensuring that support surface is firm and level.
- Using the handle of a screwdriver or similar object, run it over the spokes and listen to the sound pattern.

If the sound pattern is uneven:

- Have spokes checked by a specialist workshop, preferably by an authorized BMW Motorrad Retailer.

Wheels

Affect of wheel sizes on suspension control systems

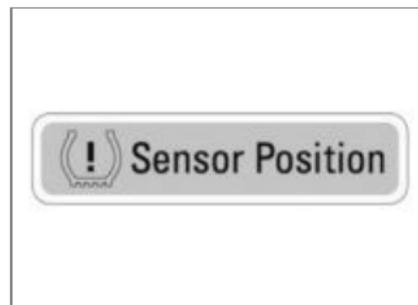
The wheel sizes play a major role for the ABS and ASC suspension control systems. The diameter and width of the wheels stored in the control unit have particular significance as the basis for all necessary calculations. A change in these sizes resulting from conversion to wheels not installed as standard equipment can seriously affect the control efficiency of these systems.

The sensor rings required for wheel speed detection must also match the installed control systems and may not be replaced. If you want to equip your motorcycle with different wheels, please contact a specialist service facility, preferably a BMW Motorrad retailer. In some

cases the data stored in the control units can be adapted for the new wheel sizes.

TPC/RDC sticker

- with Tire Pressure Monitor (TPM)^{OE}



ATTENTION

Improper tire removal

Damage to the TPC/RDC sensors

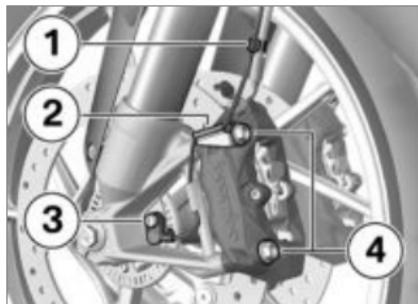
- Inform a specialist service facility or an authorized BMW Motorrad retailer on the

fact that the wheel is equipped with a TPC/RDC sensor. ◀

On motorcycles equipped with TPC/RDC, a corresponding sticker is located on the wheel rim at the position of the TPC/RDC sensor. During a tire change it must be ensured that the TPC/RDC sensor is not damaged. Inform the BMW Motorrad retailer or the authorized workshop of the TPC/RDC sensor.

Removing front wheel

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



- Detach wheel speed sensor lead from retaining clips **1** and **2**.
- Remove screw **3** and take wheel speed sensor out of bore.
- Mask off areas of wheel rim that could be scratched in the process of removing the brake calipers.



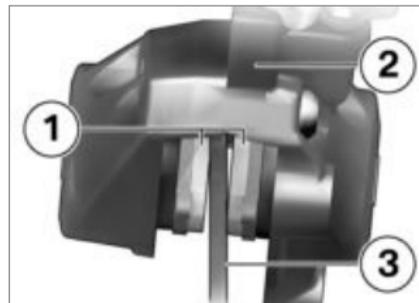
ATTENTION

Unintentional pressing together of brake pads

Component damage when mounting the brake caliper or

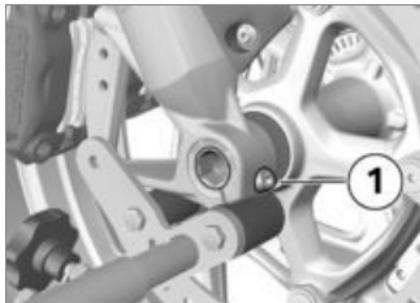
when pressing the brake pads apart

- Do not actuate the brakes with the brake caliper removed. ◀
- Remove securing screws **4** of left and right brake calipers.

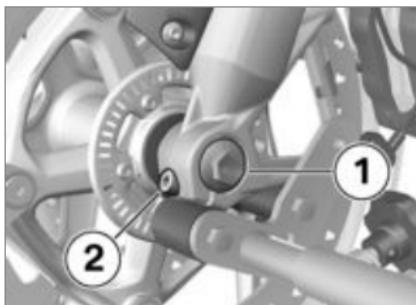


- Push brake pads **1** slightly apart by turning the brake caliper **2** back and forth against the brake rotor **3**.
- Carefully pull brake calipers back and outward to remove them from brake rotors.

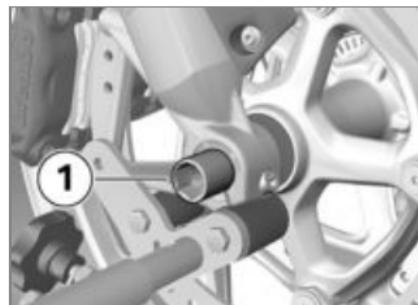
- Raise front of motorcycle, preferably using a BMW Motorrad front wheel stand, continuing until the wheel rotates freely.
- Mount front wheel stand (➡ 133).



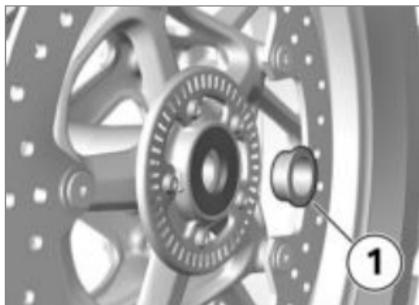
- Remove right-hand axle clamping screw **1**.



- Remove the screw **1**.
- Remove left axle clamping screw **2**.
- Slightly press the quick-release axle inward for a better grip on the right side.



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



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

Installing front wheel

WARNING

Use of a wheel which does not comply with series specifications

Malfunctions during control interventions by ABS and ASC

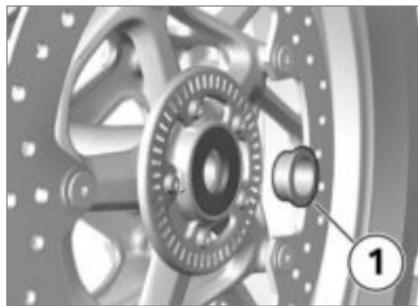
- Please see the information on the effect of wheel sizes on the ABS and ASC chassis control systems at the beginning of this chapter. ◀

ATTENTION

Tightening of screwed connections with incorrect tightening torque

Damage or loosening of screwed connections

- Always have the tightening torques checked by a specialized workshop, preferably an authorized BMW Motorrad retailer. ◀



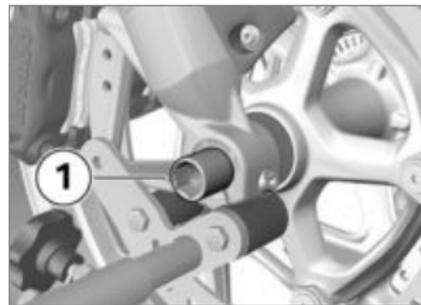
- Mount spacing bushing **1** on left side in wheel hub.

ATTENTION

Front wheel installation opposite the running direction

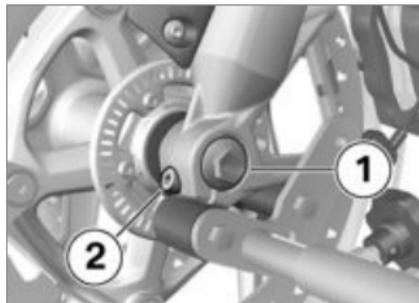
Accident hazard

- Observe running direction arrows on tire or rim. ◀
- Roll front wheel into front suspension.



- Lift front wheel and install quick-release axle **1**.
- Remove front wheel stand and firmly compress front forks. Do not actuate handbrake lever at the same time.

- Mount front wheel stand (▶▶▶ 133).



- Install screw **1** with specified torque. Brace quick-release axle on the right side at the same time.

 Quick-release axle in telescopic fork

22 lb/ft (30 Nm)

- Tighten left axle clamping screw **2** with appropriate torque.

 Clamping screw for quick-release axle in telescopic fork

14 lb/ft (19 Nm)



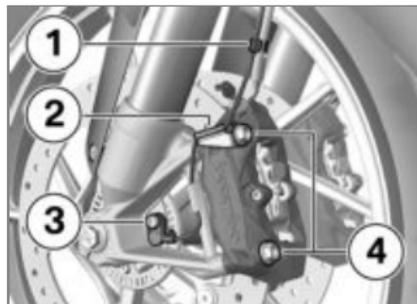
- Tighten the right-hand axle clamping screw **1** with the specified torque.

 Clamping screw for quick-release axle in telescopic fork

14 lb/ft (19 Nm)

- Remove front wheel stand.

- Slide the brake calipers on the left-hand and right-hand side onto the brake rotors.



- Install securing screws **4** on left and right with specified torque.

 Brake caliper on telescopic forks

28 lb/ft (38 Nm)

- Remove adhesive tape from wheel rim.

WARNING

Brake pads do not contact the brake disc

Risk of accident due to delayed braking effect.

- Before driving off, check that the braking effect kicks in without any delay. ◀
- Engage the brakes repeatedly, continuing until the brake pads seat against the rotors.
- Locate wheel speed sensor lead in the retaining clips **1** and **2**.
- Insert wheel speed sensor in bore and install screw **3**.



Wheel speed sensor on fork

Joint compound: Micro-encapsulated

6 lb/ft (8 Nm)

Removing rear wheel

- Make sure ground is level and firm and place motorcycle on its center stand.
- Shift into first gear.

CAUTION

Hot exhaust system

Burn hazard

- Do not touch hot exhaust system. ◀
- Let rear muffler cool down.



- Remove bolts **1** of rear wheel, holding wheel as you do so.

- Roll rear wheel out toward rear.

Install rear wheel

WARNING

Use of a wheel which does not comply with series specifications

Malfunctions during control interventions by ABS and ASC

- Please see the information on the effect of wheel sizes on the ABS and ASC chassis control systems at the beginning of this chapter. ◀



ATTENTION

Tightening of screwed connections with incorrect tightening torque

Damage or loosening of screwed connections

- Always have the tightening torques checked by a specialized workshop, preferably

an authorized BMW Motorrad retailer. ◀

- Place rear wheel on rear wheel support.



- Install wheel studs **1** with specified torque.

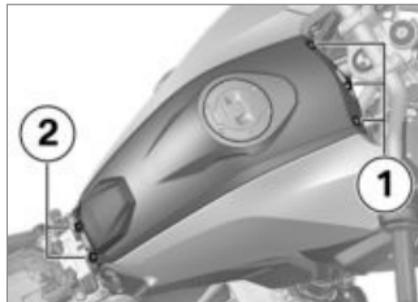
 Tighten rear wheel on wheel flange

Tightening sequence: Tighten crosswise

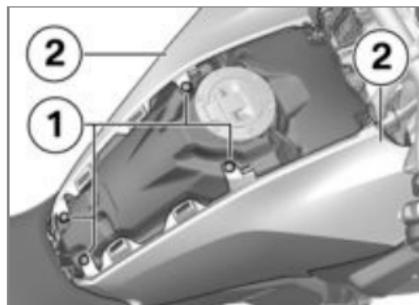
44 lb/ft (60 Nm)

Air filter

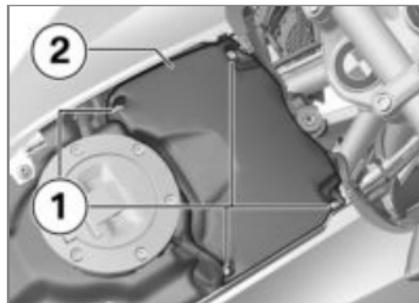
Replacing air cleaner insert



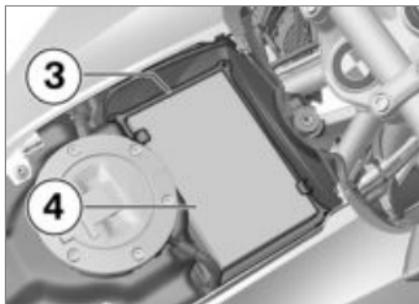
- Remove rider's seat (► 87).
- Remove screws **1** and **2**.
- Remove center fairing panel.



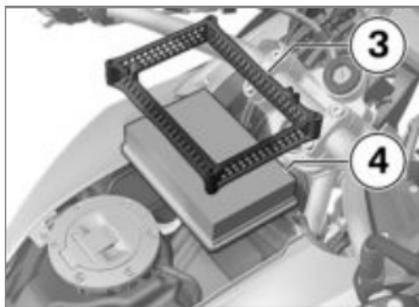
- Remove screws **1**.
- Loosen cover panel **2** on both sides.



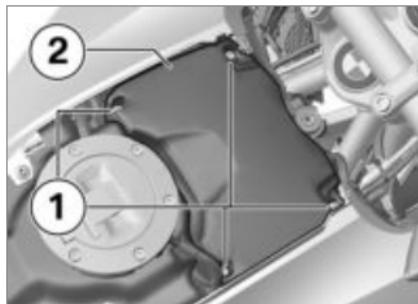
- Remove screws **1**.
- Remove air filter cover **2**.



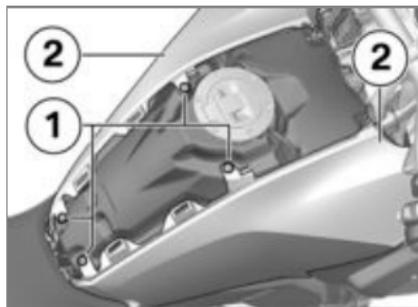
- Remove frame **3**.
- Remove air filter element **4**.



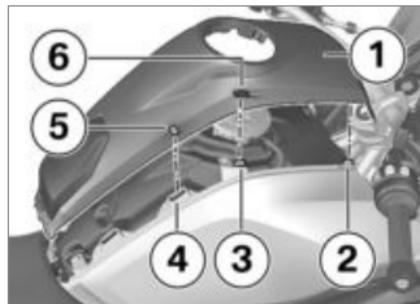
- Clean air filter element **4** or replace, if necessary.
- Replace air filter element **4** and frame **3**.



- Put on air filter cover **2**.
- Install the screws **1**.



- Position cover panel **2** on both sides.
- Install screws **1**.



- Position center trim panel **1**.
- Press left and right clamps **3** and **5** into the mounts **4** and **6**, while paying attention to the retaining lugs **2**.



- Install screws **1** and **2**.

- Installing rider's seat (➡ 88).

Light sources

Replacing low and high-beam light sources in headlight

NOTICE

The alignment of connector, spring wire strap and bulb may differ from that shown in the following illustrations. ◀

- Park motorcycle, ensuring that support surface is firm and level.
- Turn off ignition.



- Remove cover panel **1** by turning counter-clockwise in order to replace the low-beam headlight.

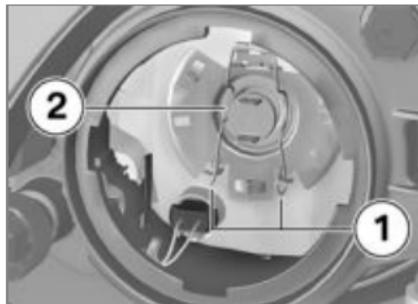


- Remove cover panel **1** by turning counter-clockwise in order

to replace the light source for the high beams.



- Disconnect plug **1**.



- Release wire spring **1** from the detent and fold to side.
- Remove light source **2**.

- Replace defective light source.

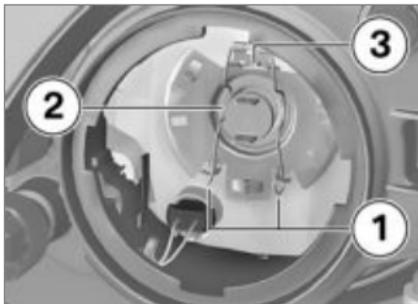
 Bulbs for low-beam headlight

H7 / 12 V / 55 W

 Bulb for high-beam headlight

H7 / 12 V / 55 W

- To protect the glass against soiling, only grasp the light source by the base.



- Insert the light source **2**, taking care to ensure that the lug **3** is positioned correctly.



NOTICE

The alignment of the bulb may differ from the illustration. ◀

- Insert wire spring **1** into the detent.



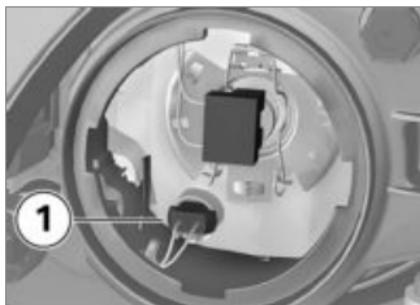
- Connect connector **1**.
- Position cover panel and install it by turning clockwise.

Replacing light source for parking light

- Park motorcycle, ensuring that support surface is firm and level.
- Turn off ignition.



- Remove cover panel **1** by turning counter-clockwise.



- Remove bulb holder **1** from the headlight housing.



- Remove light source **1** from the socket.

- Replace defective light source.

 Bulb for parking light
W5W / 12 V / 5 W

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



- Insert bulb **1** in bulb socket.



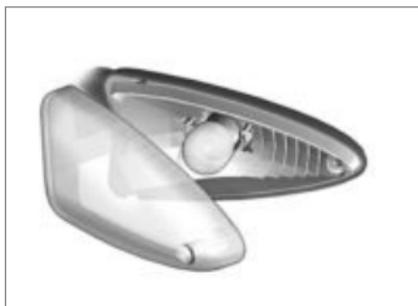
- Install bulb socket **1** into the headlight housing.
- Position cover panel and install it by turning clockwise.

Replacing front and rear turn indicator light sources

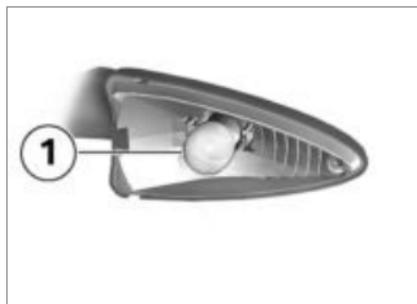
- Park motorcycle, ensuring that support surface is firm and level.
- Switch off ignition.



- Remove the screw **1**.



- Remove the lens from the housing by pulling it outward on the side with the screw.



- Remove bulb **1** from light housing by turning it counterclockwise.
- Replace defective light source.



Bulbs for flashing turn indicators, front

RY10W / 12 V / 10 W

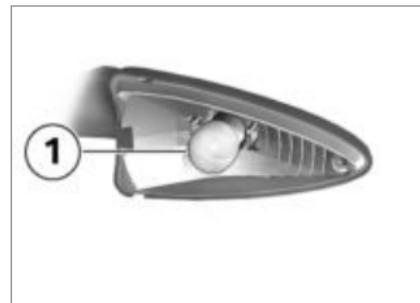


Bulbs for flashing turn indicators, rear

RY10W / 12 V / 10 W

- To prevent contaminants from being deposited on the glass

surface, always use a clean, dry cloth to hold the light source.



- Install light source **1** by turning clockwise in light housing.



- Insert inside end of lens into light housing and close it.



- Fit the screw **1**.

Replacing LED tail light

The LED tail light can only be completely replaced.

- For details please contact a specialist service facility, preferably an authorized BMW Motorrad Retailer.

Replace additional LED headlight

– with LED auxiliary headlight^{OA}

The LED additional headlights can only be completely replaced; it is not possible to replace individual LEDs.

Please contact a specialized workshop, preferably an authorized BMW Motorrad retailer.

Jump-starting

CAUTION

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

Electrocution

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

ATTENTION

Current too high when jump-starting the motorcycle

Cable fire or damage to the motorcycle electronics

- Do not jump-start the motorcycle using the power socket, only via the battery terminal.◀

ATTENTION

Contact between crocodile clips of jump leads and motorcycle

Danger of short circuit

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

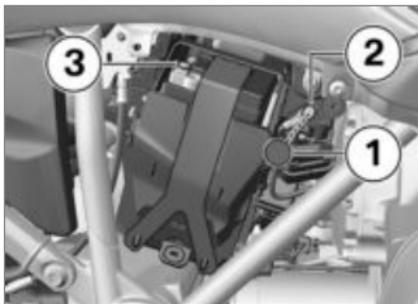
ATTENTION

Jump-starting with a voltage higher than 12 V

Damage to the motorcycle's electronics

- The battery of the donor motorcycle must have a voltage of 12 V.◀
- Park motorcycle, ensuring that support surface is firm and level.

- Remove battery cover (▣▶ 158).
- Do not disconnect the battery from the onboard electrical system when jump-starting the engine.



- Remove protective cap **1**.
- Begin by connecting the red jump lead to the positive battery connection point **2** on the drained battery and the other end to the positive terminal of the donor battery.
- Then clamp one end of the black jump lead to the donor battery's negative terminal **3** while connecting the other end

to the drained battery's negative terminal.

- Run engine of donor motorcycle during jump-starting procedure.
- Start engine of motorcycle with discharged battery in usual way; if engine does not start, wait a few minutes before repeating attempt in order to protect starter motor and donor battery.
- Allow both engines to idle for a few minutes before disconnecting jumper cables.
- Disconnect jumper cable from negative terminals first, then disconnect second cable from positive terminals.



NOTICE

To start the engine, do not use start sprays or similar items.◀

- Install the protective cap.

- Installing battery cover (▣▶ 160).

Battery

Maintenance instructions

Correct battery maintenance combined with proper charging and storage procedures extends the battery's service life, and is also required for warranty claims. Compliance with the points below is important in order to maximize 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****Discharging of the connected battery by the vehicle electronics (e.g. clock)**

Total discharge of battery leading to a rejection of warranty claims

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

 **NOTICE**

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

Charging connected battery **ATTENTION****Charging the battery connected to the vehicle using the battery terminals**

Damage to the motorcycle's electronics

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

 **ATTENTION****Charging a fully discharged battery via the power socket or additional onboard socket**

Damage to the motorcycle's electronics

- Always charge a fully discharged battery (battery voltage below 9 V; with the ignition switched on, the indicator lights and the multifunction display remain

off) directly at the poles of the **disconnected** battery. ◀

 **ATTENTION****Unsuitable chargers connected to the power socket**

Damage to charger and vehicle electronics

- Use suitable BMW chargers. The correct charger is available through your authorized BMW Motorrad retailer. ◀
- Charge disconnected battery via onboard socket.

 **NOTICE**

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

- Comply with operating instructions of charger.

NOTICE

If you are unable to charge the battery via the onboard socket, you may be using a charger that is not compatible with your motorcycle's electronics. In this case, charge the battery directly from the terminals of the battery disconnected from the vehicle.◀

Charging disconnected battery

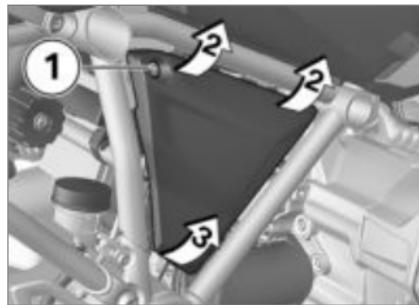
- Charge battery using a suitable charger.
- Comply with operating instructions of charger.
- Once battery is fully charged, disconnect charger's terminal clips from battery terminals.

NOTICE

In the case of longer periods when the motorcycle is not being used, the battery must be

recharged regularly. See the instructions for caring for your battery. Always fully recharge the battery before returning it to use.◀

Removing battery

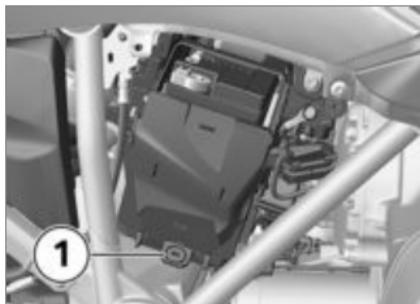


- Turn off ignition.
- Remove the screw **1**.
- Pull battery cover at top slightly forward at the positions **2**.
- In order not to damage the battery cover and the mount, remove the battery cover upward at position **3**.

- with anti-theft alarm system (DWA)^{OE}
- Switch off anti-theft alarm system if necessary.◀



- Remove negative battery cable **1** and rubber strap **2**.



- Pull mounting plate on position **1** outward and remove it upward.
- Slightly lift and remove battery from holder until positive terminal becomes accessible.



- Remove positive battery cable **1** and pull out battery.

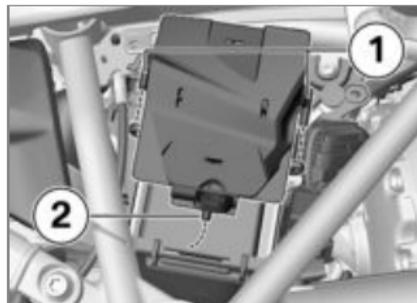
Install battery

NOTICE

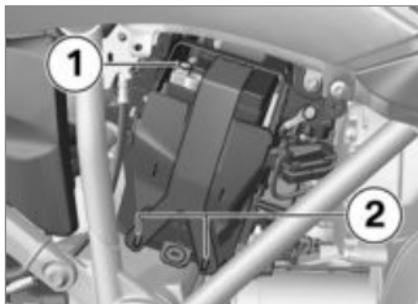
If the 12 V battery is installed incorrectly, or if the terminals are swapped (e.g. when jump-starting), the fuse for the alternator regulator may blow.◀



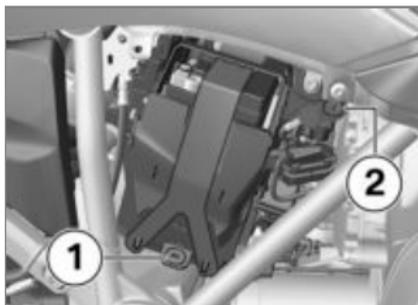
- Fasten positive battery cable **1**.
- Slide battery into holder.



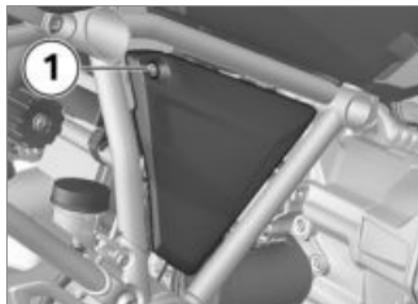
- First, insert mounting plate into supports **1**. Next, press it under the battery at position **2**.



- Fasten negative battery cable **1**.
- Fasten battery with rubber strap **2**.



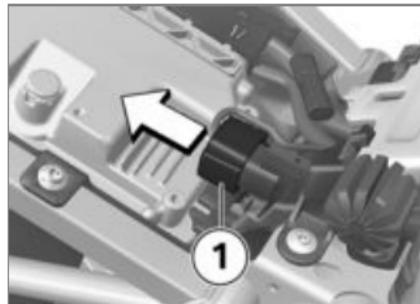
- Insert battery cover into mount **1** and press it into mount **2**.



- Fit the screw **1**.
- Set clock (▣▣▣ 62).
- Set date (▣▣▣ 63).

Fuses

Replace fuses



- Turn off ignition.
- Remove rider's seat (▣▣▣ 87).
- Disconnect plug **1**.



ATTENTION

Bypassing defective fuses

Risk of short circuit and fire

- Do not bypass defective fuses.
- Replace defective fuses with new fuses.◀
- Consult the fuse assignment diagram and replace the defective fuse.

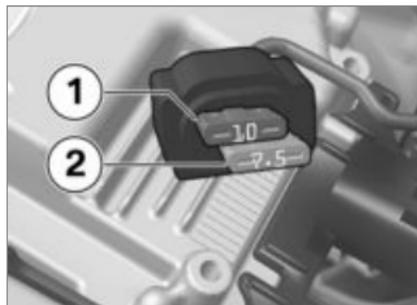


NOTICE

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

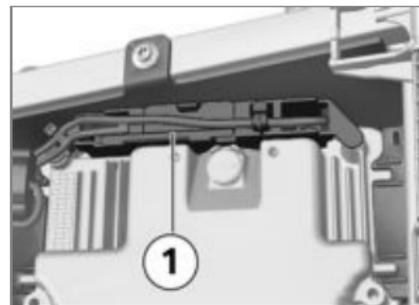
- Install connector **1**.
- Installing rider's seat (➡ 88).

Fuse assignment



- 1** 10 A
Instrument cluster
Anti-theft alarm system (DWA)
Ignition switch
Diagnostic socket
- 2** 7.5 A
Multifunction switch, left
Tire Pressure Control (TCP/RDC)

Fuse for alternator regulator



- 1** 50 A
Alternator regulator

Data link connector

Removing the diagnostic connector

CAUTION

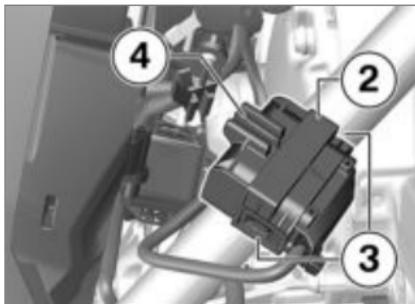
Incorrect procedure followed when disconnecting the data link connector for the On-Board Diagnostics.

Motorcycle experiences malfunctions

- Only have the data link connector disconnected by a specialist workshop or other authorized persons during your next BMW Service appointment.
- Have the work performed by appropriately trained staff.
- Refer to the vehicle manufacturer specifications. ◀
- Remove battery cover (➔ 158).



- Press the hook **1** and lift out the data link connector **2**.

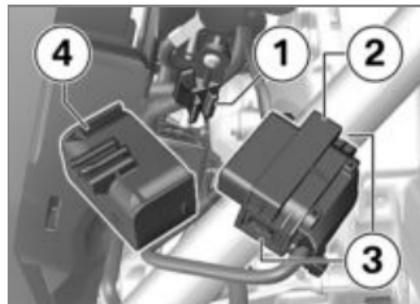


- Press the locking mechanisms **3** on both sides.
- Remove the data link connector **2** from the bracket **4**.

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

Secure the data link connector

- Disconnect the diagnosis and information system interface.



- Plug the seat data link connector **2** into the bracket **4**.
- » The locking mechanisms **3** engage on both sides.
- Connect the bracket **4** to the mount **1**.



- Make sure that the hook **5** has engaged.
- Installing battery cover (▶▶▶ 160).

Accessories

General notes.....	166
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General notes



CAUTION

Use of products from other manufacturers

Safety risk

- BMW Motorrad cannot examine or test each product of outside origin to ensure that it can be used on or in connection with BMW motorcycles without constituting a safety hazard. Nor is this guarantee provided when the official approval of a specific country has been granted. Tests conducted by these instances cannot make provision for all operating conditions experienced by BMW motorcycles and, consequently, they are not sufficient in some circumstances.
- Use only parts and accessories approved by BMW for your motorcycle. ◀

The safety, operation and suitability of the parts and accessory products have been checked extensively by BMW. Therefore, BMW assumes responsibility for these products. BMW shall not be liable for unapproved parts and accessory products of any kind.

Whenever you are planning modifications, comply with all the legal requirements. The motorcycle must not violate the regulations governing motorcycle approval for highway use applicable in your own country.

Your authorized BMW Motorrad retailer offers you qualified advice in choosing genuine BMW parts, accessories and other products. More information on the topic of accessories is available at:

bmw-motorrad.com/accessories

Onboard power sockets

Connection of electrical devices

- The ignition must be switched on before electrical devices connected to the power sockets can be operated.

Cable routing

- The cables from the onboard sockets to the auxiliary devices must be routed in such a way that they do not impede the rider.
- Cable routing must not restrict the steering angle and the handling characteristics.
- Cables must not be trapped.

Automatic deactivation

- The onboard sockets are automatically switched off during starting.
- These sockets are switched off approx. 15 minutes after

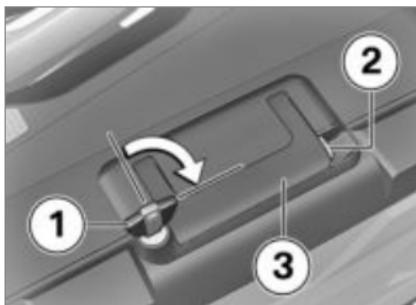
switching off the ignition to reduce the strain on the onboard electrical system. Additional devices with low power consumption are possibly not detected by the vehicle electronics. In these cases, onboard sockets are already switched off shortly after the ignition is switched off.

- In case of insufficient battery voltage, the onboard sockets are switched off to maintain the ability to start the motorcycle.
- If the maximum loadability specified in the technical data is exceeded, the onboard sockets are switched off.

Case

Opening case

– with case^{OA}



- Turn key **1** clockwise.
- Hold down yellow locking device **2** and fold out carrying handle **3**.



- Press yellow button **1** downward while opening case lid.

Adjusting case volume

– with case^{OA}

- Open and empty case.

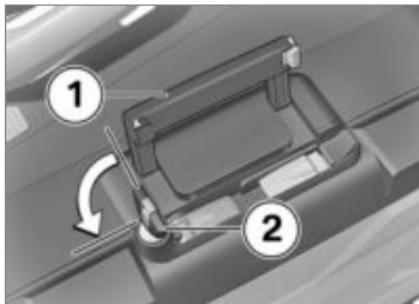


- Engage pivot lever **1** in upper end position to obtain smaller volume.
- Engage pivot lever **1** in lower end position to set larger volume.
- Close case.

Closing case

– with case^{OA}

- Turn key in case lock perpendicular to direction of travel.
- Close case lid.
- » The lid clicks audibly into place.



ATTENTION

Folding down the carrying handle when the case is locked

Damage to the locking tab

- Before folding down the carrying handle, make sure that the slot of the case lock is per-

pendicular to the direction of travel. ◀

- Fold carrying handle **1** down.
- Turn key **2** counterclockwise and remove.

Removing case

– with case^{OA}



- Turn key **1** clockwise.
- Hold down yellow locking device **2** and fold out carrying handle **3**.



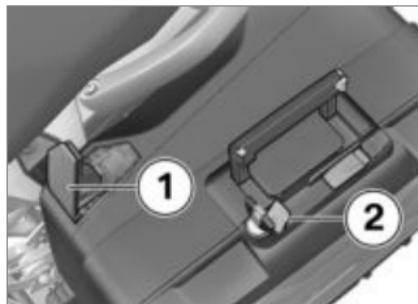
- Pull up red release lever **1**.
- » Locking flap **2** pops up.
- Fold locking flap all the way open.
- Remove case from mount by its handle.

Mounting case

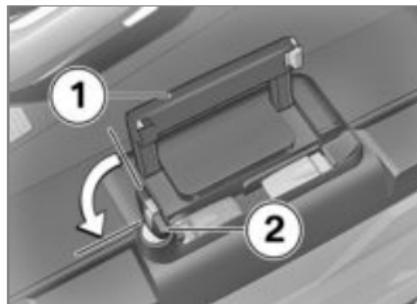
– with case^{OA}



- Pull up red release lever **1**.
- » Locking flap **2** pops up.
- Fold locking flap all the way open.



- Press locking flap **1** down until resistance can be felt.
- Next, press locking flap and red release lever **2** down at the same time.
- » Locking flap clicks into place.



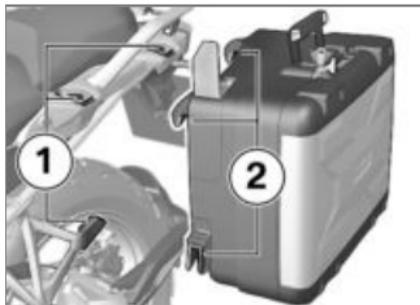
ATTENTION

Folding down the carrying handle when the case is locked

Damage to the locking tab

- Before folding down the carrying handle, make sure that the slot of the case lock is perpendicular to the direction of travel. ◀

- Fold carrying handle **1** down.
- Turn key **2** counterclockwise and remove.



- Insert case from the top into mounts **1** and **2**.

Maximum payload and maximum speed

Observe maximum payload and maximum speed as indicated on label in case.

If you cannot find your combination of motorcycle and case on the label, contact your BMW Motorrad Retailer.

The following values apply to the combination described here:



Maximum speed for riding with Vario case

max 112 mph (max 180 km/h)



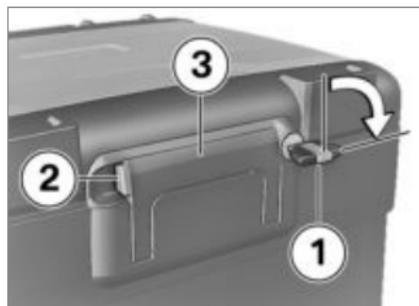
Payload per Vario case

max 22 lbs (max 10 kg)

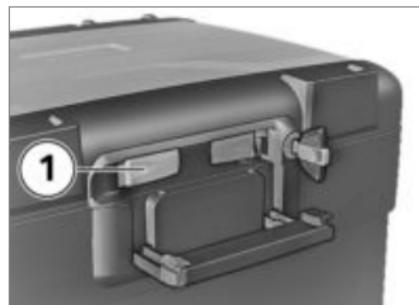
Topcase

Opening topcase

– with topcase^{OA}



- Turn key **1** clockwise.
- Hold down yellow locking device **2** and fold out carrying handle **3**.



- Press yellow button **1** forward while opening the topcase lid.

Adjusting topcase volume

– with topcase^{OA}

- Open and empty topcase.

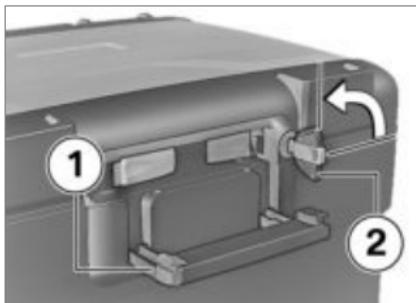


- Engage pivot lever **1** in front end position to set larger volume.
- Engage pivot lever **1** in rear end position to set smaller volume.
- Close topcase.

Closing topcase

– with topcase^{OA}

- Close topcase lid with firm pressure.



ATTENTION

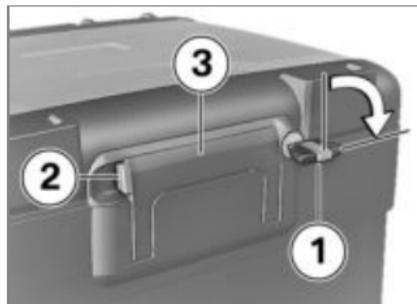
Folding down the carrying handle when the case is locked

Damage to the locking tab

- Before folding down the carrying handle, make sure that the slot of the topcase lock is vertical. ◀
- Fold carrying handle **1** down.
 - » Carrying handle audibly engages.
- Turn key **2** counterclockwise and remove.

Removing topcase

– with topcase^{OA}



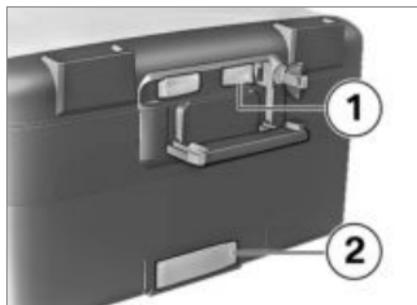
- Turn key **1** clockwise.
- Hold down yellow locking device **2** and fold out carrying handle **3**.



- Pull red lever **1** toward rear.
» Locking flap **2** pops up.
- Fold locking flap all the way open.
- Remove topcase from mounting by its handle.

Mounting topcase

– with topcase^{OA}



- Pull red lever **1** toward rear.
» Locking flap **2** pops up.
- Fold locking flap all the way open.

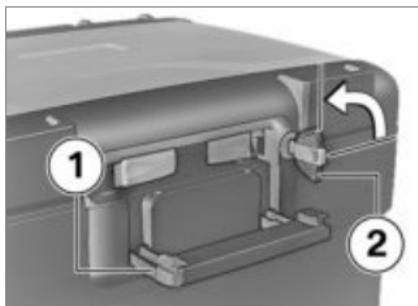


- Hook topcase into front holders **1** of topcase retaining plate.

- Press topcase onto topcase retaining plate at rear.



- Press locking flap **1** forward until resistance can be felt.
- Next, press locking flap and red release lever **2** forward at the same time.
» Locking flap clicks into place.



ATTENTION

Folding down the carrying handle when the case is locked

Damage to the locking tab

- Before folding down the carrying handle, make sure that the slot of the topcase lock is vertical. ◀
- Fold carrying handle **1** down.
» Carrying handle audibly engages.
- Turn key **2** counterclockwise and remove.

Maximum payload and maximum speed

Observe maximum payload and top speed as indicated on label in Topcase.

If you cannot find your combination of motorcycle and topcase on the sign, contact your authorized BMW Motorrad retailer.

The following values apply to the combination described here:



Maximum speed when riding with loaded Vario topcase

max 112 mph (max 180 km/h)



Payload of Vario topcase

max 11 lbs (max 5 kg)

Mount Topcase

– with topcase 2 large, 49 l^{OA}



WARNING

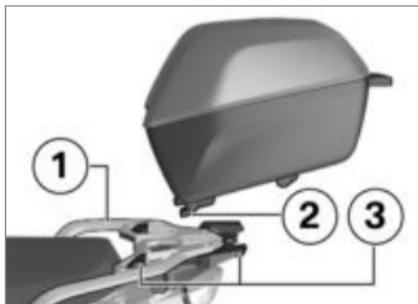
Topcase not properly secured

Driving safety is impaired

- Topcase must not shake and must be fastened clearance-free. ◀



- Pull handle **1** up as far as it will go.



- Hook the topcase into the luggage rack **1**. Make sure that the hooks **2** fit securely into the mountings **3**.
- Press handle down until it engages.



- Turn key in Topcase lock into Position **1** and remove.



Maximum speed
when driving with
Topcase 2 large, 49 l

max 112 mph (max 180 km/h)



Payload of Top-
case 2 large, 49 l

max 11 lbs (max 5 kg)

- Do not exceed values for maximum speed and payload.

Open Topcase

– with topcase 2 large, 49 l^{OA}



- Turn key in Topcase lock into Position **1**.



- Press lock barrel **1** forward.

- » Release lever **2** pops up.
- Pull release lever all the way up.
- » Topcase lid opens.

Close Topcase

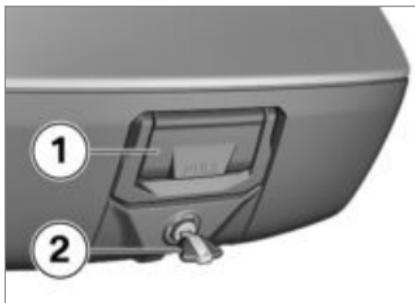
– with topcase 2 large, 49 l^{OA}



- Pull release lever **1** all the way up.
- Close topcase lid and hold it down. Ensure that no items are trapped between cover and case.

NOTICE

The topcase can also be locked if the lock is in the LOCK position. Under such circumstances, ensure that the ignition key is not in the topcase. ◀



- Press release lever **1** down until it engages.
- Turn key **2** in Topcase lock to the **LOCK** position and remove.

Remove Topcase

– with topcase 2 large, 49 l^{OA}



- Turn key in Topcase lock into Position **1**.
- » Handle pops out.



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

Navigation system

– with preparation for navigation system^{OE}

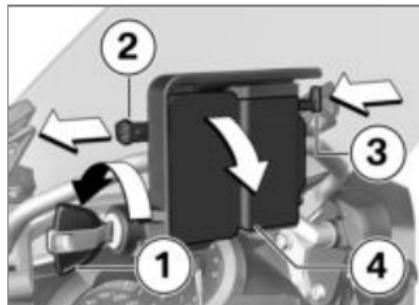
Securely fasten navigation device

NOTICE

The navigation preparation is suitable for the BMW Motorrad Navigator IV and the BMW Motorrad Navigator V.◀

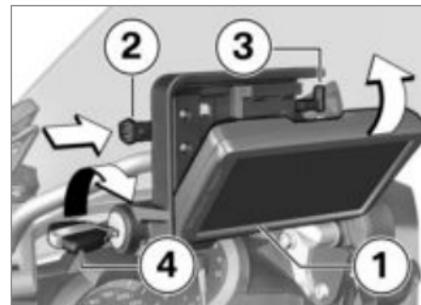
NOTICE

The locking system of the Mount Cradle offers no protection against theft. Remove the navigation system and store in a safe place after every drive.◀



- Turn ignition key **1** counter-clockwise.
- Pull shut-off lock **2** to **left**.
- Press in locking device **3**.
- » Mount Cradle is unlocked and cover **4** can be removed with

a rotating movement toward front.



- Mount navigation device **1** in lower area and swing toward rear with a rotating movement.
- » Navigation device audibly engages.
- Slide shut-off lock **2** completely to **right**.
- » Locking device **3** is locked.
- Turn ignition key **4** clockwise.
- » Navigation device is locked and ignition key can be removed.

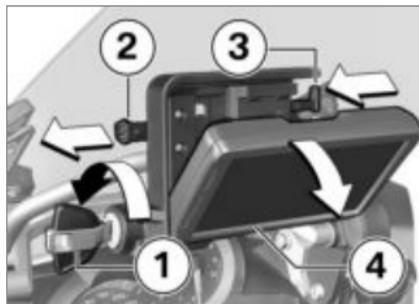
Removing the navigation device and installing the cover panel

ATTENTION

Dust and dirt on the contacts of the Mount Cradle

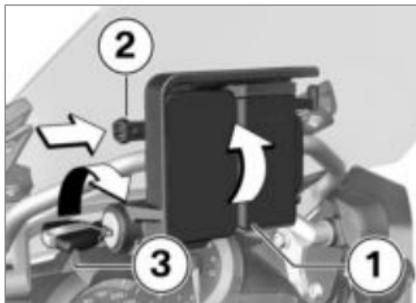
Damage to the contacts

- Reinstall the cover after end of each drive.◀



- Turn ignition key **1** counter-clockwise.
- Pull shut-off lock **2** completely to **left**.
- » Locking device **3** is unlocked.

- Slide locking device **3** completely to **left**.
- » Navigation device **4** is unlocked.
- Remove navigation device **4** downward with a tilting movement.



- Mount cover **1** in lower area and swing upward with a rotating movement.
- » Cover audibly engages.
- Slide shut-off lock **2** to **right**.
- Turn ignition key **3** clockwise.
- » Cover **1** is secured.

Operating the navigation system

NOTICE

The following description refers to the Navigator V. The Navigator IV does not offer all options described.◀

NOTICE

Only the latest version of the BMW Motorrad communication system is supported. A software update may be required for the BMW Motorrad communication system. In this case, please contact your authorized BMW Motorrad retailer.◀

If BMW Motorrad Navigator is installed, some of its functions can be directly operated from the handlebars using the Multi-Controller.



The Multi-Controller is operated using six motions:

- Turning up and down.
- Short actuation to the left and right.
- Long actuation to the left and right.

Turning the Multi-Controller increases or decreases the volume of a BMW Motorrad communication system connected via Bluetooth on the Compass and Mediaplayer page.

Menu items on the BMW special menu are selected by turning the Multi-Controller.

Short actuation of the Multi-Controller to the left respectively to the right switches between the main pages of the Navigator:

- Map view
- Compass
- Mediaplayer
- BMW special menu
- My motorcycle page

Long actuation of the Multi-Controller corresponds to the activation of certain functions on the Navigator display. These functions are indicated with an arrow to the right or the left above the corresponding touch field.



The function is triggered by long actuation to the right.



The function is triggered by long actuation to the left.

In detail, the following functions can be operated:

Map view

- Turning upward: increase size of map section (Zoom in).
- Turn downward: reduce size of map section (Zoom out).

Compass page

- Turning increases or reduces volume of a BMW Motorrad communication system connected via Bluetooth.

BMW special menu

- Speak: Repeat last navigation announcement.
- Way point: Save current way point as favorite.
- Navigate home: Starts navigation to the home address (is grayed-out if no home address is set).
- Mute: Switch automatic navigation announcements (off: the top line in the display shows

a crossed-out lip icon). Navigation announcements can still be output via "Speak". All other sound outputs remain switched on.

- Switching off display: Switch off display.
- Call home: Calls the phone number stored in the navigator (only displayed when a phone is connected).
- Detour: Activates the detour function (only displayed if a route is active).
- Skip: Skips the next way point (only displayed if route is provided with way points).

My Motorcycle

- Turn: Changes the number of data displayed.
- Touching a data field on the display opens a menu for selecting the data.

- The values available for selection are dependent on the optional extras installed.

NOTICE

The Mediaplayer function is only available when using a Bluetooth device with A2DP standard, such as a BMW Motorrad communication system.◀

Mediaplayer

- Long actuation to left: play previous title.
- Long actuation to right: play next title.
- Turning increases or reduces volume of a BMW Motorrad communication system connected via Bluetooth.

Warning and status messages



Warning and status messages of the motorcycle are indicated with a corresponding symbol **1** at the upper left on the map view.

NOTICE

If a BMW Motorrad communication system is connected, an acoustic signal is also sounds in case of a warning.◀

If several warning messages are active, the number of messages is indicated below the warning triangle.

A list of all warning messages is opened by pressing on the warning triangle with more than one message.

Additional information is displayed when a message is selected.



NOTICE

Detailed information cannot be displayed for all warnings. ◀

Special functions

Due to integration of the BMW Motorrad Navigator, there are a number of differences from the descriptions in the instruction manual for the Navigator.

Reserve fuel level warning

The settings for the fuel gauge are not available, as the reserve warning is being transferred from the vehicle to the Navigator. If the message is active, the nearest filling stations are displayed when the message is pressed.

Time and Date

The Navigator sends the time and date to the motorcycle. Transfer of this data into the instrument cluster must be activated in the **SETUP** menu of the instrument cluster.

Security settings

The BMW Motorrad Navigator V can be secured against unauthorized use with a four-digit PIN (Garmin Lock). When this function is activated, once the Navigator GPS receiver is cradled on the motorcycle and the ignition is switched on you will receive a prompt asking whether the motorcycle should be added to the list of secure vehicles. If you answer "Yes" to this question, the Navigator saves the vehicle identification number (VIN) of this motorcycle in its internal memory.

A maximum of five VINs can be saved in this way.

When the Navigator is subsequently switched on by switching on the ignition on one of those motorcycles, entry of the PIN is no longer necessary.

If the Navigator is removed from the motorcycle 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. No manual input is necessary.

The automatic setting can be switched off in the display settings in the Navigator if desired.

Care

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Care products

BMW Motorrad recommends that you use cleaning and care products available at your authorized BMW Motorrad retailer. BMW Care Products have been materials tested, laboratory tested, and field tested and provide optimum care and protection for the materials used in your vehicle.



ATTENTION

Use of unsuitable cleaning and care agents

Damage to motorcycle parts

- Do not use any solvents such as nitro thinners, cold cleaners, fuel or similar, and do not use cleaning agents that contain alcohol. ◀

Washing your motorcycle

BMW Motorrad recommends that you use BMW Insect Remover to soften and wash off insects and stubborn dirt from painted parts before washing the motorcycle.

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

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

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



WARNING

Damp brake disks and brake pads after washing the mo-

torcycle, after riding through water or in the rain

Poorer braking action, accident hazard

- Brake early until the brake rotors and brake pads are dry. ◀



ATTENTION

Increased effect of salt caused by warm water

Corrosion

- Only use cold water to remove road salt. ◀



ATTENTION

Damage caused by high water pressure from high-pressure cleaners or steam-jet devices

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

- Exercise caution when using high-pressure or steam-jet devices. ◀



NOTICE

Cases and topcases made of aluminum have no surface coating. The best possible appearance is preserved with the following care: Remove road salt and corrosive deposits immediately with cold water after completing the trip. ◀

Cleaning sensitive motorcycle parts

Plastics



ATTENTION

Use of unsuitable cleaning agents

Damage to plastic surfaces

- Do not use abrasive cleaners or cleaners containing alcohol or solvents.

- Do not use insect sponges or sponges with a hard surface. ◀

Fairings and panels

Clean fairings and panels with water and BMW plastic cleaner.

Windshields and lenses are manufactured in plastic

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



NOTICE

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



Clean with water and sponge only.



Do not use chemical cleansers.

Chrome

Especially in the case of road salt, carefully clean chrome parts with plenty of water and BMW auto shampoo. 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

- When cleaning, ensure that the cooler fins are not bent. ◀

Rubber parts

Treat rubber components with water or BMW rubber protection coating agent.



ATTENTION

Use of silicone sprays for care of rubber seals

Damage to rubber seals

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

Paint care

Washing the vehicle on a regular basis will help prevent long-term damage from harmful substances, and is especially important when your vehicle is used in areas with high levels of air pollution or where natural contaminants such as tree resin and pollen are present.

At the same time, you should remove particularly aggressive materials immediately; otherwise changes in the paint and discoloration can occur. These include spilled fuel, oil, grease and brake

fluid as well as bird droppings. It is advisable to use BMW Car Polish or BMW Paint Cleaner in this case.

Contamination on the paint finish is particularly easy to see after the motorcycle has been washed. Remove this type of soiling with cleaning naphtha or spirit on a clean cloth or cotton ball. BMW Motorrad recommends using BMW tar remover for removing tar spots. Then add a protective wax coating to the paint at these locations.

Protective wax coating

Paint must be protected, if water no longer pearls up on it.

To preserve the finish of your vehicle, BMW Motorrad recommends BMW Car Wax or agents that contain carnauba or synthetic waxes.

Store motorcycle

- Clean motorcycle.
- Completely fill the motorcycle's fuel tank.
- Removing battery (▶▶▶▶ 158).
- Spray the brake and clutch lever, and the center and side stand pivots with a suitable lubricant.
- Preserve bare metal and chrome-plated parts with an acid-free grease (Vaseline).
- Park motorcycle in a dry room, raising it to remove weight from both wheels (preferably using the front wheel and rear-wheel stand offered by BMW Motorrad).

Return motorcycle to use

- Remove the protective wax coating.
- Clean motorcycle.
- Install battery (▣➔ 159).
- Observe checklist (▣➔ 100).

Technical data

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Troubleshooting chart

Engine does not start.

Possible cause	Remedy
Side stand extended and gear engaged	Retract side stand.
Gear engaged and clutch not disengaged	Place transmission in neutral or disengage clutch.
No fuel in tank	Refueling procedure (▮▮▮▮▶ 111).
Battery drained	Charging connected battery (▮▮▮▮▶ 157).
Overheating protection for starter motor has activated. Starter motor can only be actuated for a limited period.	Leave the starter motor to cool down for around 1 minute until it becomes available again.

Threaded fasteners

Front wheel	Value	Valid
Quick-release axle in telescopic fork		
M12 x 20	22 lb/ft (30 Nm)	
Clamping screw for quick-release axle in telescopic fork		
M8 x 35	14 lb/ft (19 Nm)	
Brake caliper on telescopic forks		
M10 x 65	28 lb/ft (38 Nm)	
Wheel speed sensor on fork		
M6 x 16 Micro-encapsulated	6 lb/ft (8 Nm)	
Rear wheel	Value	Valid
Tighten rear wheel on wheel flange		
M10 x 1.25 x 40	Tightening sequence: Tighten cross-wise	
	44 lb/ft (60 Nm)	

Mirrors	Value	Valid
Mirror (locknut) on adapter		
M10 x 1.25	Left-hand thread, 16 lb/ft (22 Nm)	
Adapter on clamping block		
M10 x 14 - 4.8	18 lb/ft (25 Nm)	
Handlebars	Value	Valid
Clamping block (handlebar clamp) on fork bridge		
M8 x 35	Tightening sequence: Tighten on block in front (in the direction of travel)	
	14 lb/ft (19 Nm)	

Fuel

Recommended fuel quality	Super unleaded (max. 10 % ethanol, E10) 89 AKI (95 ROZ/RON) 89 AKI
Alternative fuel quality	Regular unleaded (restrictions with regard to power and consumption.) (max. 10 % ethanol, E10) 87 AKI (91 ROZ/RON) 87 AKI
Usable fuel quantity	Approx. 5.3 gal (Approx. 20 l)
Reserve fuel quantity	Approx. 1.1 gal (Approx. 4 l)
Emission standard	Euro 4

Engine oil

Engine oil, capacity	max 1.1 gal (max 4 l), with filter replacement
Specification	SAE 5W-40, API SL/JASO MA2, Additives (for instance, molybdenum-based substances) are prohibited, because they would attack the coatings on engine components, BMW Motorrad recommends BMW Motorrad ADVANTEC Ultimate oil.
Engine oil, quantity for topping up	max 1 quarts (max 0.95 l), Difference between MIN and MAX

BMW recommends **ADVANTEC**
ORIGINAL BMW ENGINE OIL

Engine

Engine number location	Lower right of engine block beneath the starter
Engine type	122EN
Engine design	Air-/liquid-cooled two cylinder four-stroke opposed-twin engine with double overhead camshaft and a counterbalance shaft
Displacement	1170 cc (1170 cm ³)
Cylinder bore	4 in (101 mm)
Piston stroke	2.9 in (73 mm)

Compression ratio	12.5:1
Rated output	125 hp (92 kW), at engine speed: 7750 min ⁻¹
– with reduction of power ^{OE}	107 hp (79 kW), at engine speed: 7750 min ⁻¹
Torque	92 lb/ft (125 Nm), at engine speed: 6500 min ⁻¹
– with reduction of power ^{OE}	90 lb/ft (122 Nm), at engine speed: 5250 min ⁻¹
Maximum engine speed	max 9000 min ⁻¹
Idle speed	1150 min ⁻¹ , Engine at operating temperature

Clutch

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

Transmission

Transmission design	6-speed transmission with helical cut dog ring gears
Transmission gear ratios	1.000 (60:60 teeth), Primary gear ratio 1.650 (33:20 teeth), Transmission input ratio 2.438 (39:16 teeth), 1st gear 1.714 (36:21 teeth), 2nd gear 1.296 (35:27 teeth), 3rd gear 1.059 (36:34 teeth), 4th gear 0.943 (33:35 teeth), 5th gear 0.848 (28:33 teeth), 6th gear 1.061 (35:33 teeth), Transmission output ratio

Rear-wheel drive

Type of final drive	Shaft drive with bevel gears
Type of rear suspension	Cast-aluminum single swing arm with BMW Motorrad Paralever
Gear ratio of final drive	2.91 (32:11 teeth)

Frame

Frame design	Steel-tube frame with partially self-supporting drive unit, steel-tube rear frame
Location of type plate	Frame at front left on steering head
Location of the vehicle identification number	Frame at front right on steering head

Suspension

Front wheel

Type of front suspension	BMW Telelever, upper fork bridge tilt decoupled, leading link mounted in engine and on telescopic fork, centrally positioned spring strut supported on leading link and frame
Design of the front-wheel suspension	Central spring strut with coil spring
– with Dynamic ESA ^{OE}	Central spring strut with coil spring and expansion tank, electrically adjustable rebound-stage and compression damping
Spring travel, front	7.5 in (190 mm), on wheel
– with Style 1 ^{OE}	8.3 in (210 mm), on wheel
– with sport suspension ^{OE}	
– with low-slung ^{OE}	6.2 in (158 mm), on wheel

Rear wheel	
Type of rear suspension	Cast-aluminum single swing arm with BMW Motorrad Paralever
Type of rear suspension	Central spring strut with coil spring, adjustable rebound-stage damping and spring preload
– with Dynamic ESA ^{OE}	Central spring strut with coil spring and expansion tank, electrically adjustable rebound-stage and compression damping, electrically adjustable spring preload
Spring travel at rear wheel	7.9 in (200 mm)
– with Style 1 ^{OE}	8.7 in (220 mm)
– with sport suspension ^{OE}	
– with low-slung ^{OE}	6.7 in (170 mm)

Brakes

Front wheel

Type of front brake	Hydraulically operated double disc brakes with 4-piston radial monobloc calipers and floating brake discs
Front brake pad material	Sintered metal
Free travel of brake actuation (Front wheel brake)	Approx. 0.07 in (Approx. 1.85 mm), at piston

Rear wheel

Type of rear brake	Hydraulically operated disk brake with 2-piston floating caliper and fixed brake disk
Rear brake pad material	Sintered metal
Blow-by clearance of footbrake lever	0.04...0.06 in (1...1.5 mm), Between frame and footbrake lever

Wheels and tires

Recommended tire combinations	An overview of the current tire approvals is available from your authorized BMW Motorrad retailer or on the Internet at bmw-motorrad.com .
Speed category of front/rear tires	V, minimum requirement: 149 mph (240 km/h)

Front wheel

Front wheel design	Aluminum cast wheel
– with cross spoke wheels ^{OE}	Cross spoke wheel
Front-wheel rim size	3.00" x 19"
Front tire designation	120/70 R 19
Load index for front tire	At least 60
Permissible front-wheel imbalance	max 0.2 oz (max 5 g)

Rear wheel

Rear wheel design	Aluminum cast wheel
– with cross spoke wheels ^{OE}	Cross spoke wheel
Rear-wheel rim size	4.50" x 17"
Rear tire designation	170/60 R 17
Load index for rear tire	At least 72
Permissible rear-wheel imbalance	max 1.6 oz (max 45 g)

Tire inflation pressures

Tire pressure, front	36.3 psi (2.5 bar), with tire cold
Tire pressure, rear	42.1 psi (2.9 bar), with tire cold

Electrical system

Electrical rating of onboard sockets	max 5 A, all onboard sockets together
Fuse carrier 1	10 A, Slot 1: instrument cluster, anti-theft alarm system (DWA), ignition lock, diagnostic socket 7.5 A, Slot 2: left multifunction switch, Tire Pressure Control (TCP/RDC)
Fuse carrier	50 A, Fuse 1: Voltage regulator

Battery

Battery design	AGM (Absorptive Glass Mat) battery.
Battery voltage	12 V
Battery capacity	12 Ah

Spark plugs

Spark plugs, manufacturer and designation	NGK LMAR8D-J
Electrode gap of spark plug	0.03±0.01 in (0.8±0.1 mm), New 0.04 in (1.0 mm), Wear limit

Bulbs

Bulb for high-beam headlight	H7 / 12 V / 55 W
Bulbs for low-beam headlight	H7 / 12 V / 55 W
Bulb for parking light	W5W / 12 V / 5 W
Bulb for taillight/brake light	LED
Bulbs for flashing turn indicators, front	RY10W / 12 V / 10 W
Bulbs for flashing turn indicators, rear	RY10W / 12 V / 10 W

Alarm system

Activation time	Approx. 30 s
Alarm duration	Approx. 26 s
Battery type	CR 123 A

Dimensions

Motorcycle length	86.9 in (2207 mm), over splash guard
Motorcycle height	56.3...58.7 in (1430...1490 mm), over windshield, at DIN unladen weight
– with Style 1 ^{OE}	51.7...54 in (1312...1372 mm), over windshield, at DIN unladen weight
– with Style 1 ^{OE} – with sport suspension ^{OE}	52.4...54.8 in (1332...1392 mm), over windshield, at DIN unladen weight
– with Style 1 ^{OE} – with sport suspension ^{OE} – with passenger package ^{OE}	57.1...59.4 in (1450...1510 mm), over windshield, at DIN unladen weight
– with low-slung ^{OE}	55.3...57.7 in (1405...1465 mm), over windshield, lower position, at DIN unladen weight
Motorcycle width	37.5 in (952 mm), with mirrors
Rider's seat height	33.5...34.3 in (850...870 mm), without rider at unladen weight
– with comfort seat ^{OE}	32.5...33.3 in (825...845 mm), without rider at unladen weight
– with comfort seat high ^{OE}	33.5...34.3 in (850...870 mm), without rider at unladen weight

– with low rider's seat ^{OE}	32.3...33.1 in (820...840 mm), without rider at unladen weight
– with Style 1 ^{OE}	33.9 in (860 mm), without rider at unladen weight
– with Style 1 ^{OE} – with seat extra high ^{OE}	34.6 in (880 mm), without rider at unladen weight
– with Style 1 ^{OE} – with passenger package ^{OE}	33.5...34.3 in (850...870 mm), without rider at unladen weight
– with Style 1 ^{OE} – with sport suspension ^{OE}	34.6 in (880 mm), without rider at unladen weight
– with Style 1 ^{OE} – with sport suspension ^{OE} – with seat extra high ^{OE}	35.4 in (900 mm), without rider at unladen weight
– with Style 1 ^{OE} – with sport suspension ^{OE} – with passenger package ^{OE}	34.3...35 in (870...890 mm), without rider at unladen weight
– with low-slung ^{OE}	31.5...32.3 in (800...820 mm), without rider at unladen weight

Rider's inside-leg arc, heel to heel	73.6...75.2 in (1870...1910 mm), without rider at unladen weight
– with comfort seat ^{OE}	74...74.8 in (1880...1900 mm), without rider at unladen weight
– with comfort seat high ^{OE}	75.6...76.4 in (1920...1940 mm), without rider at unladen weight
– with low rider's seat ^{OE}	71.7...73.2 in (1820...1860 mm), without rider at unladen weight
– with Style 1 ^{OE}	74 in (1880 mm), without rider at unladen weight
– with Style 1 ^{OE} – with seat extra high ^{OE}	75.6 in (1920 mm), without rider at unladen weight
– with Style 1 ^{OE} – with passenger package ^{OE}	73.6...75.2 in (1870...1910 mm), without rider at unladen weight
– with Style 1 ^{OE} – with sport suspension ^{OE}	75.6 in (1920 mm), without rider at unladen weight
– with Style 1 ^{OE} – with sport suspension ^{OE} – with seat extra high ^{OE}	77.2 in (1960 mm), without rider at unladen weight
– with Style 1 ^{OE} – with sport suspension ^{OE} – with passenger package ^{OE}	75.2...76.8 in (1910...1950 mm), without rider at unladen weight

– with low-slung ^{OE}	70.5...72 in (1790...1830 mm), without rider at unladen weight
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Weights

Vehicle curb weight	538 lbs (244 kg), DIN unladen weight, ready for road, fuel tank 90 % full, without OE
Permissible gross weight	1014 lbs (460 kg)
Maximum payload	476 lbs (216 kg)

Performance data

Top speed	>124 mph (>200 km/h)
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Service

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Reporting safety defects

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

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

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

BMW Motorrad Service

With its worldwide retailer network, BMW Motorrad can attend to you and your motorcycle in over 100 countries around the globe. Authorized BMW Motorrad retailers have the technical information and expertise needed to conduct reliable service and repairs covering every aspect of your BMW.

You will find the nearest authorized BMW Motorrad retailer to you at our website:

bmw-motorrad.com

WARNING

Improperly performed maintenance and repair work

Accident hazard caused by subsequent damage

- BMW Motorrad recommends having corresponding work on the motorcycle carried out

by a specialized workshop, preferably by an authorized BMW Motorrad retailer. ◀

To ensure that your BMW consistently remains in optimal condition BMW Motorrad urges you to observe the recommended service intervals.

Have all maintenance and repair work confirmed in the "Service" chapter in this manual. Documentation confirming regular maintenance is essential for generous treatment of claims submitted after the warranty period has expired (goodwill).

You can obtain information on the contents of the BMW Services from your BMW Motorrad retailer.

BMW Motorrad Mobility Services

The BMW Motorrad Mobility Services furnish you and your new BMW motorcycle with extra security by offering a wide array of assistance services in the event of a breakdown (BMW Roadside Assistance, breakdown assistance, vehicle recovery and retrieval, etc.).

Contact your authorized BMW Motorrad retailer for additional information on available mobility-maintenance services.

Maintenance procedures

BMW Pre-Delivery Check

The BMW pre-delivery check is carried out by your authorized BMW Motorrad retailer before it turns over the vehicle to you.

BMW Running-in Check

The BMW running-in check must be carried out between 300 mls (500 km) and 750 mls (1200 km).

BMW Service

BMW Service is carried out once a year. The scope of the services performed may be dependent on the motorcycle owner and the mileage driven. Your BMW Motorrad retailer confirms that the service has been performed and enters the date for the next service.

For riders who drive long distances annually, it may be necessary to come in for service before the entered date. In this case a corresponding maximum odometer reading will also be entered in the confirmation of service. If this odometer reading is reached be-

fore the next service date, service must be performed sooner.

The service display in the multi-function display reminds you of the next service date approx. one month or 620 miles (1000 km) before the entered values.

More information on the topic of service is available at:

bmw-motorrad.com/service

The required scope of maintenance work for your motorcycle can be found in the following maintenance plan:

Maintenance schedule

- 1** BMW Running-in check (including oil change)
- 2** BMW Service Standard Scope
- 3** Engine oil change with filter
- 4** Oil change in the rear bevel gears
- 5** Check valve clearance
- 6** Replace all spark plugs
- 7** Replace air cleaner insert
- 8** Check or replace the air filter element
- 9** Change brake fluid in entire system
 - a** annually or every 6000 miles (10000 km) (whichever comes first)
 - b** annually or every 12000 miles (20000 km) (whichever comes first)
 - c** when used off-road, annually or every 6000 miles (10000 km) (whichever comes first)
 - d** for the first time after one year, then every two years

Maintenance confirmations

BMW Service standard scope

The repair procedures belonging to the BMW Service standard package are listed below. The actual maintenance work applicable for your vehicle may differ.

- Performing the brief test using the BMW Motorrad diagnosis system
- Visual inspection of hydraulic clutch system
- Visual check of brake lines, brake hoses and connections
- Checking front brake pads and brake disks for wear
- Checking brake fluid level of front brake
- Checking rear brake pads and brake disk for wear
- Checking brake fluid level for rear brake
- Checking coolant level
- Checking side stand for ease of movement
- Checking the center stand for ease of movement
- Check the tire tread depth and tire pressure
- Check the tension of the spokes and tighten as needed
- Checking the lighting and signal system
- Functional check for engine starting suppression
- Final inspection and check for road safety
- Set the service due date and remaining distance before next service
- Checking charging state of battery
- Confirm the BMW service in the vehicle literature

BMW pre-delivery check

performed

on _____

Stamp, signature

BMW Running-in Check

performed

on _____

at km _____

Next service

latest

on _____

or, if reached earlier

at km _____

Stamp, signature

BMW Service

performed

on _____

at km _____

Next service

latest

on _____

or, if reached earlier

at km _____

Work performed

BMW Service

Engine oil change with filter

Oil change in rear bevel gears

Checking valve clearance

Replacing all spark plugs

Replacing air cleaner element

Checking or replacing air cleaner element (maintenance)

Changing brake fluid in entire system

Yes

No

Information

Stamp, signature

BMW Service

performed

on _____

at km _____

Next service

latest

on _____

or, if reached earlier

at km _____

Work performed

BMW Service

Engine oil change with filter

Oil change in rear bevel gears

Checking valve clearance

Replacing all spark plugs

Replacing air cleaner element

Checking or replacing air cleaner element (maintenance)

Changing brake fluid in entire system

Yes

No

Information

Stamp, signature

BMW Service

performed

on _____

at km _____

Next service

latest

on _____

or, if reached earlier

at km _____

Work performed

BMW Service

Engine oil change with filter

Oil change in rear bevel gears

Checking valve clearance

Replacing all spark plugs

Replacing air cleaner element

Checking or replacing air cleaner element (maintenance)

Changing brake fluid in entire system

Yes

No

Information

Stamp, signature

BMW Service

performed

on _____

at km _____

Next service

latest

on _____

or, if reached earlier

at km _____

Work performed

BMW Service

Engine oil change with filter

Oil change in rear bevel gears

Checking valve clearance

Replacing all spark plugs

Replacing air cleaner element

Checking or replacing air cleaner element (maintenance)

Changing brake fluid in entire system

Yes No

Information

Stamp, signature

BMW Service

performed

on _____

at km _____

Next service

latest

on _____

or, if reached earlier

at km _____

Work performed

BMW Service

Engine oil change with filter

Oil change in rear bevel gears

Checking valve clearance

Replacing all spark plugs

Replacing air cleaner element

Checking or replacing air cleaner element (maintenance)

Changing brake fluid in entire system

Yes

No

Information

Stamp, signature

BMW Service

performed

on _____

at km _____

Next service

latest

on _____

or, if reached earlier

at km _____

Work performed

BMW Service

Engine oil change with filter

Oil change in rear bevel gears

Checking valve clearance

Replacing all spark plugs

Replacing air cleaner element

Checking or replacing air cleaner element (maintenance)

Changing brake fluid in entire system

Yes No

Information

Stamp, signature

BMW Service

performed

on _____

at km _____

Next service

latest

on _____

or, if reached earlier

at km _____

Work performed

BMW Service

Yes

No

Engine oil change with filter

Oil change in rear bevel gears

Checking valve clearance

Replacing all spark plugs

Replacing air cleaner element

Checking or replacing air cleaner element (maintenance)

Changing brake fluid in entire system

Information

Stamp, signature

BMW Service

performed

on _____

at km _____

Next service

latest

on _____

or, if reached earlier

at km _____

Work performed

BMW Service

Engine oil change with filter

Oil change in rear bevel gears

Checking valve clearance

Replacing all spark plugs

Replacing air cleaner element

Checking or replacing air cleaner element (maintenance)

Changing brake fluid in entire system

Yes

No

Information

Stamp, signature

BMW Service

performed

on _____

at km _____

Next service

latest

on _____

or, if reached earlier

at km _____

Work performed

BMW Service

Engine oil change with filter

Oil change in rear bevel gears

Checking valve clearance

Replacing all spark plugs

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Changing brake fluid in entire system

Yes

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Changing brake fluid in entire system

Yes No

Information

Stamp, signature

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FCC Approval

Ring aerial in the ignition switch



To verify the authorization of the ignition key, the electronic immobilizer exchanges information with the ignition key via the ring aerial.

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

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



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

Approbation de la FCC

Antenne annulaire présente dans le commutateur d'allumage



Pour vérifier l'autorisation de la clé de contact, le système d'immobilisation électronique échange des

informations avec la clé de contact via l'antenne annulaire.

Le présent dispositif est conforme à la partie 15 des règles de la FCC. Son utilisation est soumise aux deux conditions suivantes :

- (1) Le dispositif ne doit pas produire d'interférences nuisibles, et
- (2) le dispositif doit pouvoir accepter toutes les interférences extérieures, y compris celles qui pourraient provoquer une activation inopportune.



Toute modification qui n'aurait pas été approuvée expressément par l'organisme responsable de l'homologation peut annuler l'autorisation accordée à l'utilisateur pour utiliser le dispositif. ◀

Certifications

BMW Keyless Ride ID Device



USA, Canada

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

Canada:

Operation is subject to the following two conditions:

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

USA:

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

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



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

Declaration Of Conformity

We declare under our responsibility that the product

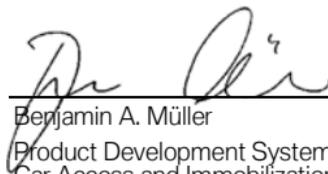
BMW Keyless Ride ID Device (Model: HUF5750)

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

1. Health and safety requirements contained in article 3 (1) a)
 - EN 60950-1:2006+A11:2009+A1:2010+A12:2011; Information technology equipment- Safety
2. Protection requirements with respect to electromagnetic compatibility article 3 (1) b)
 - EN 301 489-1 (V1.9.2, 09/2011), Electromagnetic compatibility and radio spectrum matters (ERM); Electromagnetic compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements
 - EN 301 489-3 (V1.4.1, 08/2002) Electromagnetic compatibility and radio spectrum matters (ERM); Electromagnetic compatibility (EMC) standard for radio equipment and services; Part 3: Specific conditions for short range devices (SRD) operating on frequencies between 9 kHz and 40 GHz
3. Means of the efficient use of the radio frequency spectrum article 3 (2)
 - EN 300 220-1 & -2 (V2.4.1, 05/2012), electromagnetic compatibility and radio spectrum matters (ERM); Short range devices (SRD); Radio equipment to be used in the 25 MHz to 1000 MHz frequency range with power levels ranging up to 500 mW;
Part 1: Technical characteristics and test methods.
Part 2: Harmonized EN covering essential requirements under article 3.2 of the R&TIE directive

The product is labeled with the CE marking: **CE**

Velbert, October 15th, 2013



Benjamin A. Müller
Product Development Systems
Car Access and Immobilization – Electronics
Huf Hülbeck & 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 expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. The term "IC:" before the radio certification number only signifies that Industry Canada technical specifications were met.

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The descriptions and illustrations in this manual may vary from your own motorcycle's actual equipment, depending upon its equipment level and accessories as well as your specific national version. No claims stemming from these differences can be recognized.

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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80788 Munich, Germany
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Original Rider's Manual, printed in Germany.

