BMW Motorrad

Rider's Manual (US Model)

R nineT Racer

Motorcycle/Retailer Data

Motorcycle Data

Model

Vehicle identification number

Color number

Initial operation

Number on fork bridge

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 8 403 347

Table of Contents

General instructions

Quick & easy reference

This Rider's Manual has been designed to provide quick and efficient orientation. Go straight to the "Overviews" chapter if you would like an initial overview of your 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.

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.

DWA Anti-theft alarm.

EWS Electronic immobilizer.

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 information on the power output stated in the rider's manual are quoted to the standards and comply with the tolerance requirements of the Deutsches Institut für Normung e. V. (DIN). Versions for individual countries may differ.

Notice concerning current status

The high safety and quality standards of BMW motorcycles are maintained by constant development work on design, equipment and accessories. For this reason, 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. We hope you will appreciate that no claims can be recognized based on the data, illustrations or descriptions in this manual.

Overviews


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General view, left side

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2 Fuel filler opening
Refueling (➠ 72).
3 Correct loading (➠ 64).
Secure luggage on motorcycle (➠ 115).
4 Adjusting damping on rear wheel (➠ 57).
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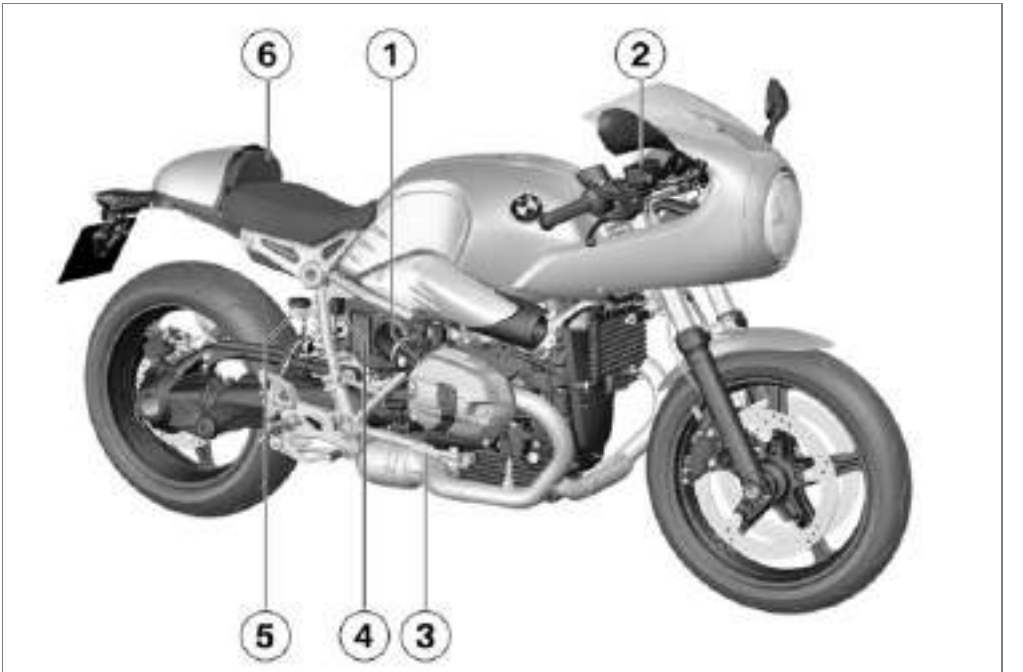
6 Check engine oil level (➠ 87).
7 Connector for optional accessories (under the tank)
8 Type plate (left on the steering-head bearing)
Tire pressure table (left on the steering-head bearing)


6
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General view, right side

1 Topping up engine oil (88).
2 Checking the front brake fluid level (91).
3 Vehicle identification number
4 Checking rear brake fluid level (92).
5 Adjusting spring preload at rear wheel (57).
6 Remove rider's seat (51).
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2 Positive battery connection point (➠ 107)
3 Fuse box
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4 Load capacity table
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6 Diagnostic connector
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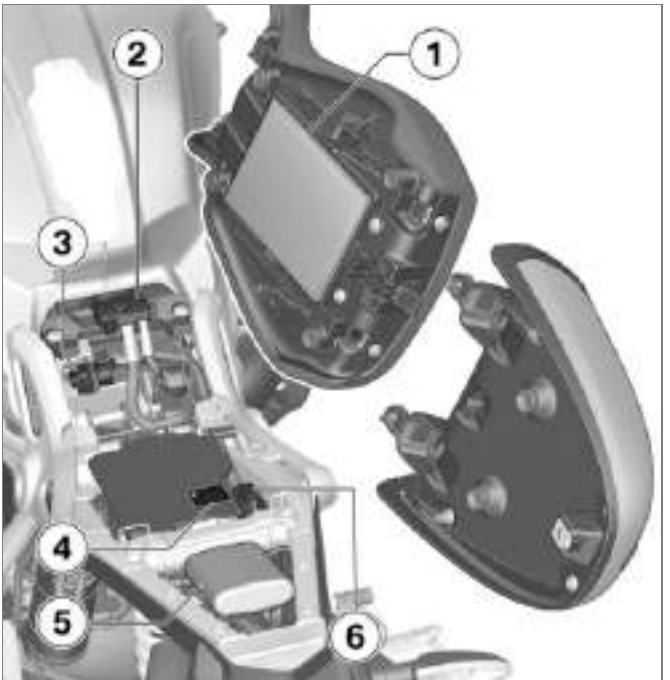

Multifunction switch, left

1 High beam and headlight flasher (➠ 37)

2 Hazard warning lights system (➠ 38)

3 – with Automatic Stability Control (ASC) OE
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6 Rocker button MENU
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Operating heated grips (➠ 50).

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2 Indicator and warning lights (➠ 20)

3 Photosensor for brightness control in multifunction displays
– with anti-theft alarm system (DWA)[OE]
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Indicator and warning lights

1 Headlight high beam indicator light
Operate the high beam and headlight flasher (➠ 37).

2 General warning light
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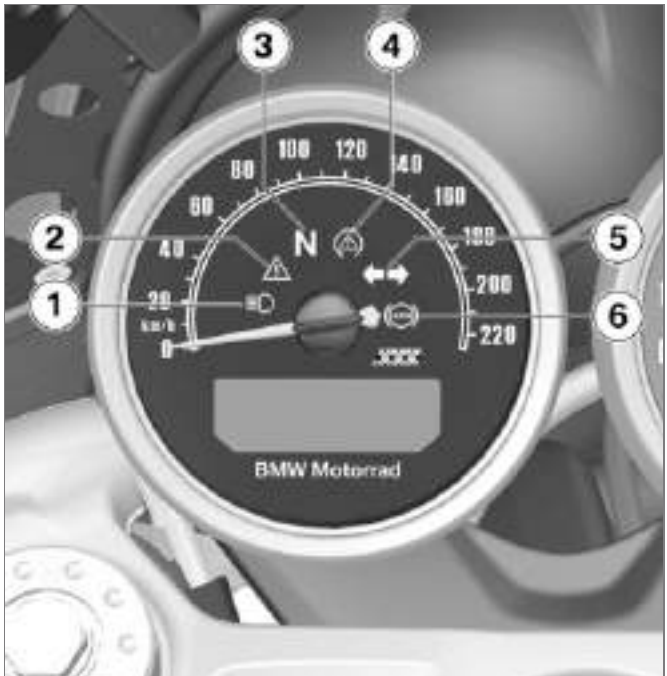
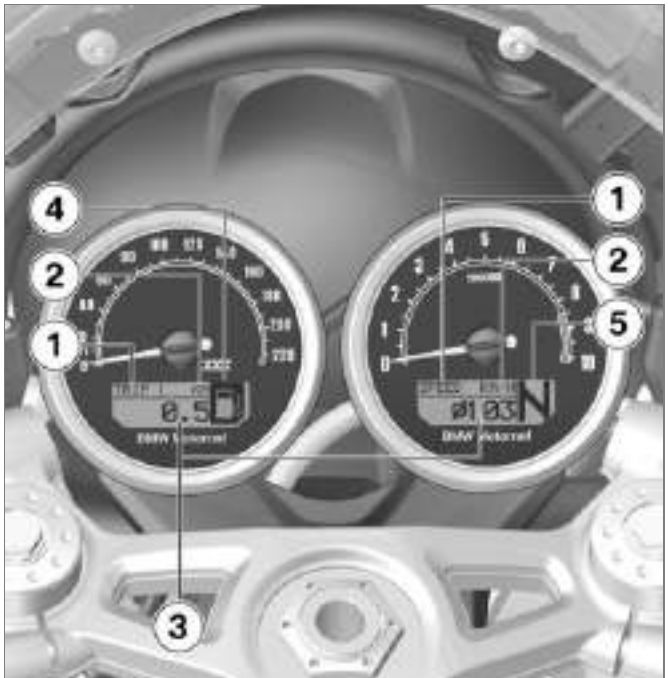
3 Neutral indicator light

4 - with Automatic Stability Control (ASC) OE
ASC indicator and warning light (➠ 29)

5 Turn signal indicator light
Operating turn signals (➠ 38).

6 ABS indicator and warning light





Multifunction displays

1 Onboard computer
Select display readings (➠ 39).

2 Unit

3 Value

4 Warning symbol
Shown in conjunction with general warning light (➠ 22)

5 Gear indicator

Warning lights

Displays

Warnings are displayed with appropriate warning lights.
If several warnings are active, all of the corresponding warning lamps and warning symbols will appear in the display.
You will find an overview of the potential warnings on the following pages.

Warnings for which there are no separate warning lamps are represented by a warning symbol **1** in the multifunction display in connection with the general warning lamp **2**. The universal warning light lights up or flashes depending on the urgency of the warning.

Overview of warning indicators

Indicator and warning lights	Display text	Meaning
 Universal warning light lights up.	 Key symbol is displayed.	Electronic immobilizer is active (➨ 26)
 Universal warning light flashes.	 Temperature symbol is displayed.	Coolant temperature too high (➨ 26)
 Universal warning light lights up.	 Engine symbol appears on the display.	Engine in emergency-operation mode (➨ 26)
 Universal warning light flashes.	 Engine symbol appears on the display.	Engine warning (➨ 27)
 Universal warning light lights up.	 Battery symbol appears in the display.	Vehicle voltage is too low (➨ 27)
 Universal warning light lights up.	 Light symbol is displayed.	Light source defective (➨ 27)
 ABS indicator light flashes.		ABS self-diagnosis not completed (➨ 28)

Indicator and warning lights	Display text	Meaning
 ABS indicator light lights up.		ABS switched off (➠ 28)
 ABS indicator light lights up.		ABS error (➠ 28)
 ASC indicator and warning light flashes rapidly.		ASC intervention (➠ 29)
 ASC indicator and warning light flashes slowly.		ASC self-diagnosis not completed (➠ 29)
 ASC indicator and warning light lights up.		ASC switched off (➠ 29)
 ASC indicator and warning light lights up.		ASC error (➠ 29)
	 Symbol for DWA battery is displayed.	Anti-theft alarm system battery discharged (➠ 30)

Indicator and warning lights	Display text	Meaning
 Universal warning light lights up.	 Symbols for fuel reserve and odometer TRIP R are displayed.	Fuel down to reserve (➡ 30)
 Universal warning light lights up.	 Symbol for service is displayed.	Service appointment has passed (➡ 31)

Electronic immobilizer is active


Universal warning light lights up.


Key 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.
- Have the defective key replaced, preferably by an authorized BMW Motorrad retailer.

Coolant temperature too high


Universal warning light flashes.


Temperature symbol is displayed.

ATTENTION

Riding with overheated engine

Engine damage

- Be sure to observe the measures listed below.◀

Possible cause:

The engine oil temperature is too high.

- If possible, continue driving in the part-load range to cool down the engine.
- Should the engine oil temperature frequently be too high, have the fault rectified as quickly as possible by a specialist workshop, preferably an authorized BMW Motorrad retailer.

Engine in emergency-operation mode


Universal warning light lights up.


Engine symbol appears on the display.

WARNING

Unusual handling when engine is in emergency operating mode

Accident hazard

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

Possible cause:

The engine control unit has diagnosed a fault. In exceptional cases, the engine stops and can no longer be started. Otherwise, the engine runs in the emergency operating mode.

- Continued driving is possible, however the accustomed en-

gine performance may not be available.
- Have the malfunction corrected as soon as possible at an authorized service facility, preferably an authorized BMW Motorrad Retailer.

Engine warning


Universal warning light flashes.


Engine symbol appears on the display.

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.
- 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.

» Continued driving is possible, however it is not recommended.

Vehicle voltage is too low


Universal warning light lights up.


Battery symbol appears in the display.

WARNING

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

Accident hazard
- Do not continue riding.◀

Possible cause:

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

Light source defective


Universal warning light lights up.


Light symbol is displayed.

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.

- Locate defective bulb with visual check.
- Replacing low and high-beam light sources in headlight (➠ 103).
- Replacing parking light light source (➠ 104).
- Replacing front and rear turn indicator light sources (➠ 105).
- Replacing LED tail light (➠ 106).

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 switched off

– with Automatic Stability Control (ASC) OE

ABS indicator light lights up.

Possible cause:

The ABS system has been deactivated by the rider.

– with Automatic Stability Control (ASC) OE

- Activating ABS (➠ 48).

ABS error

ABS indicator light lights up.

Possible cause:

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

- Continued driving is possible while taking the failed ABS function into account. You should also take account of the additional information on

situations that can lead to an ABS fault (➠ 79).
- Have the malfunction corrected as soon as possible at an authorized service facility, preferably an authorized BMW Motorrad Retailer.

ASC intervention

– with Automatic Stability Control (ASC)[OE]


ASC indicator and warning light flashes rapidly.

ASC has detected instability at the rear wheel and responded by reducing the torque. The ASC 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.

ASC self-diagnosis not completed

– with Automatic Stability Control (ASC)[OE]


ASC indicator and warning light flashes slowly.

Possible cause:

– with Automatic Stability Control (ASC)[OE]

 ASC self-diagnosis routine not completed
To check wheel speed sensors, the vehicle must reach the following speed with engine running:
min 3 mph (min 5 km/h)

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

ASC switched off

– with Automatic Stability Control (ASC)[OE]


ASC indicator and warning light lights up.

Possible cause:

The ASC system has been deactivated by the rider.
- Switch on ASC (➠ 49).

ASC error

– with Automatic Stability Control (ASC)[OE]


ASC indicator and warning light lights up.

Possible cause:

– with Automatic Stability Control (ASC)[OE]

The ASC control unit has detected an error. The ASC function is not available.
- It remains possible to continue riding. It must be noted that the ASC function is not avail-

able. You should also take account of the additional information on situations that can lead to an ASC fault (→ 80).
- Have the malfunction corrected as soon as possible at an authorized service facility, preferably an authorized BMW Motorrad Retailer.

Anti-theft alarm system battery discharged

– with anti-theft alarm system (DWA) OE

Symbol for DWA battery is displayed.

NOTICE

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

Possible cause:

The DWA battery no longer has any charging capacity. Operation of the DWA anti-theft alarm is no longer guaranteed if the vehicle battery has been disconnected.
- Contact an authorized service facility, preferably an authorized BMW Motorrad retailer.

Fuel reserve

The fuel quantity left in the tank when the low-fuel warning light switches on depends on the driving dynamics. The more the fuel is moved within the tank (due to frequently changing inclined positions, frequent braking, and accelerating), the more difficult it is to determine the fuel reserve. For this reason, the fuel reserve cannot be accurately indicated.


When the low-fuel warning light is switched on, the odometer for the fuel reserve TRIP R is automatically displayed.
The distance which can still be driven with the fuel reserve depends on the driving style (on consumption) and on the fuel quantity remaining when the warning lamp was switched on.
The odometer for the fuel reserve is reset when the fuel quantity after refueling is greater than the fuel reserve.

Fuel down to reserve


Universal warning light lights up.


Symbols for fuel reserve and odometer TRIP R are displayed.

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.

Fuel reserve
Approx. 3.7 quarts (Approx. 3.5 l)

- Refueling (→ 72).

Service appointment has passed

Universal warning light lights up.

Symbol for service is displayed.

Service display

If service is due within a month, the symbol for service **3** and the service date **2** are shown. The SERV T display **1** is briefly shown after the Pre-Ride-Check.

If service is due within 700 miles, the symbol for service **3** and the remaining kilometer range **2** will be displayed and counted down in steps of 100 miles. The SERV D display **1** is briefly shown after the Pre-Ride-Check.

NOTICE

If the service display appears more than one 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 from the vehicle.◀

Operation

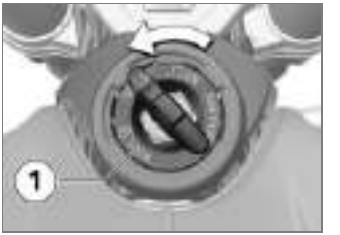
Steering and ignition lock

Vehicle keys

You will receive 2 ignition keys as well as a key to remove the tail-hump cover (➡ 51).
Should you lose your keys, refer to the information regarding the electronic immobilizer (EWS) (➡ 35).
A single key fits the ignition steering lock and fuel filler cap.

Locking handlebars

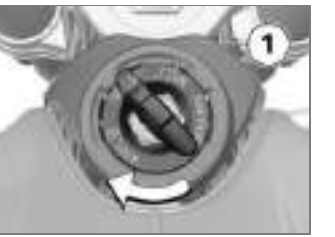
- Turn handlebars to left.



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

» Ignition, lights and all electrical circuits are switched off.
» Handlebars are locked.
» Ignition key can now be removed.

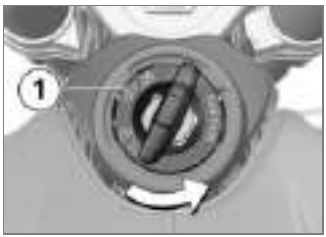
Switching on ignition



- Turn key to position **1**.

» Parking lights and all function circuits are switched on.
» Engine can be started.
» Pre-Ride-Check is carried out. (➡ 67)
» ABS self-diagnosis is performed. (➡ 68)

Switch off ignition



- Turn key to position **1**.

» Light switched off.
» Handlebars not locked.
» Ignition key can now be removed.
» Electrically powered accessories remain operational for a limited period of time.
» Battery can be recharged via onboard socket.

Electronic immobilizer (EWS)

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 EWS warning is shown 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.
Ignition keys are available only through an authorized BMW Motorrad retailer. The keys are part of an integrated security system, so the retailer is under an obligation to check the legitimacy of all applications for replacement/extra keys.

Emergency 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

NOTICE

The engine can only be started in the operating position.◀

Lights

Parking lights and low-beam headlight

The parking lamps 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 headlights automatically come on in their low-beam mode as soon as you start the engine.

NOTICE

With the engine switched off, you can switch on the lights by switching on the high-beam headlight with the ignition switched on or by operating the headlight flasher.◀

High beam and headlight flasher

- Press switch **1** toward front to switch on high-beam headlight.
- Push the **1** switch backwards to operate the headlight flasher.

Parking lights

- Switch off ignition (35).

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

Headlight courtesy delay feature

- Turn off ignition.

- Immediately after turning off the ignition, pull switch **1** back and hold until the headlight courtesy delay feature turns on.

» The vehicle lights light up for one minute and then turn off automatically.

– This can be used after parking the vehicle in order to illuminate the path to the house door, for instance.

Hazard warning lights system

Operating hazard warning flashers

NOTICE

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

- Switching on ignition (➡ 34).

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

» Ignition can be switched off.

- To switch off hazard warning flashers, switch on the ignition and press button **1** again.

Turn indicators

Operating turn signals

- Switching on ignition (➡ 34).

- 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** to switch off the turn indicators.

Turn indicator cancellation

The turn indicators automatically switch off when the defined riding time and distance have been reached. The defined riding time and distance can be set by an authorized BMW Motorrad retailer.

Display

Select display readings

Requirement

The motorcycle is stopped.

- Switching on ignition (➠ 34).

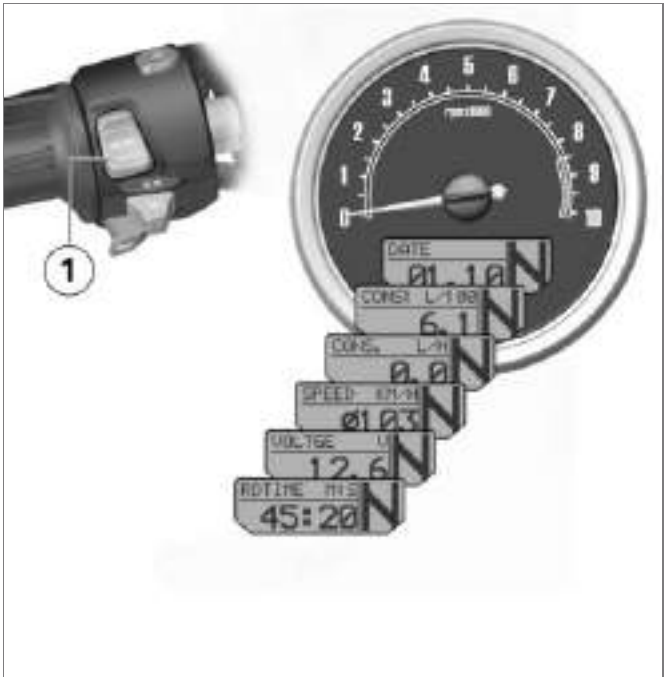
» The onboard computer is displayed.

- Briefly press button **1** repeatedly until desired value is displayed.

Possible displays:

– Total distance covered: ODO
– Trip distance 1: TRIP 1
– Trip distance 2: TRIP 2
– The automatic trip distance TRIP A is automatically reset if at least five hours have passed since the ignition was switched off and the date has changed.
– After reaching the traveled range of the fuel reserve: TRIP R, can only be selected with fuel reserve.

– Coolant temperature:
  ENGTMP
– Clock: CLOCK
– Call up the settings menu:
  SETUP ENTER



Selecting displays in the rotational-speed sensor

Requirement

The motorcycle is stopped.

- Switching on ignition (34).

» The onboard computer is displayed.

- Briefly press button **1** repeatedly until desired value is displayed.

Possible displays:

– Date: DATE
– Average fuel consumption: CONS1
– Current fuel consumption: CONS.
– Average speed: SPEED
– Vehicle voltage: VOLTGE
– Riding time: RDTIME

Resetting the trip odometer

• Switching on ignition (➠ 34).

• Repeatedly press button **1** briefly until trip recorder **2** to be reset is displayed.
• Press and hold button **1** until trip recorder **2** is reset.

Resetting average speed

• Switching on ignition (➠ 34).

• Repeatedly press button **1** briefly until SPEED is displayed.
• Press and hold button **1** until the average speed **2** is reset.

Resetting average fuel consumption

• Switching on ignition (➠ 34).

• Repeatedly press button **1** briefly until CONS1 is displayed.
• Press and hold button **1** until average consumption **2** is reset.

Resetting riding time

• Switching on ignition (➠ 34).

- Repeatedly press button **1** briefly until RDTIME is displayed.
- Press and hold button **1** until driving time **2** is reset.

Anti-theft alarm (DWA)

– with anti-theft alarm system (DWA) OE

Activate DWA

- Switching on ignition (34).
- Adjust DWA (45).
- Turn off ignition.

» If the DWA is activated, the 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).
» DWA is armed.

Alarm signal

The DWA alarm can be set off by:

– Motion sensor
– Switching on ignition with an unauthorized ignition 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 signal is approx. 26 seconds. During the DWA alarm, an alarm tone sounds and the indicators flash. The type of alarm sound can be set by an authorized BMW Motorrad retailer.

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

Light signals on DWA LED:

– 1 flash: motion sensor 1
– 2 flashes: motion sensor 2
– 3 flashes: ignition turned on with unauthorized ignition key
– 4 flashes: DWA disconnected from motorcycle battery
– 5 flashes: motion sensor 3

Deactivate DWA

- Switching on ignition (34).

» Turn indicators light up once.
» Confirmation tone sounds once (if programmed).
» DWA is now switched off.

Adjust DWA

• Switching on ignition (➠ 34).

• Repeatedly press button **1** briefly until SETUP ENTER is displayed.
• Press and hold button **1** to open SETUP.
» SET DWA is displayed.

• Press button **2** briefly to change the adjusted value.

The following settings are available:

– DWA ON: DWA anti-theft alarm is activated or is activated automatically when the ignition is switched off.
– DWA OFF: DWA anti-theft alarm is deactivated.

• Press and hold button **1** to exit SET DWA.
» SETUP ENTER is displayed.

Clock

Set clock

WARNING

Adjusting the clock while riding

Accident hazard

• Adjust the clock only when the motorcycle is stationary.◀
• Switching on ignition (➠ 34).

• Repeatedly press button **1** briefly until SETUP ENTER is displayed.

- Press and hold button **1** to open SETUP.
- Repeatedly press button **1** briefly until SET CLOCK is displayed.

- Press and hold button **2** until hours **3** flash.
- Briefly press button **1** to increment hours.
- Briefly press button **2** to decrement hours.

» The hour is set.

- Press and hold button **2** until minutes **4** flash.
- Briefly press button **1** to increment minutes.
- Briefly press button **2** to decrement minutes.

» The minutes are set.

- Press and hold button **2** until minutes no longer flash.

» The clock is set.

- Press and hold button **1** to exit SET CLOCK.

» SETUP ENTER is displayed.

Date

Set date

- Switching on ignition (34).

- Repeatedly press button **1** briefly until SETUP ENTER is displayed.
- Press and hold button **1** to open SETUP.
- Repeatedly press button **1** briefly until SET DATE is displayed.

- Press and hold button **2** until day **4** flashes.
- Briefly press button **1** to increment day.
- Briefly press button **2** to decrement day.

» The day is set.

- Press and hold button **2** until month **3** flashes.
- Briefly press **1** to increment month.
- Briefly press button **2** to decrement month.

» The month is set.

- Press and hold button **2** until SET YEAR is displayed.

- Briefly press **1** to increment year **5**.
- Briefly press button **2** to decrement year **5**.
- Press and hold button **2** until year no longer flashes.

» The year is set.

- Press and hold button **1** to exit SET YEAR.

» The date is set.

» SETUP ENTER is displayed.

Adjusting brightness

Adjusting display brightness

- Switching on ignition (34).

- Repeatedly press button **1** briefly until SETUP ENTER is displayed.
- Press and hold button **1** to open SETUP.
- Repeatedly press button **1** briefly until SET BRIGHT is displayed.

- Repeatedly press button **1** briefly until the desired value for display brightness **3** is set.

» A value from 1…5 (dark … bright) is set for display brightness.

- Press and hold button **1** to exit SET BRIGHT.

» SETUP ENTER is displayed.

Antilock Brake System (ABS)

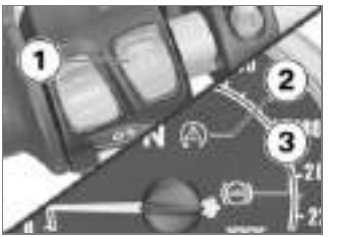
– with Automatic Stability Control (ASC)[OE]

Deactivate ABS

- Switching on ignition (➡ 34).

NOTICE

The ABS function can also be deactivated while driving.◀



- Press and hold button **1** until first the ASC indicator and warning light **2** and then the ABS indicator and warning light **3** change their display behavior.

» The ASC setting remains unchanged.

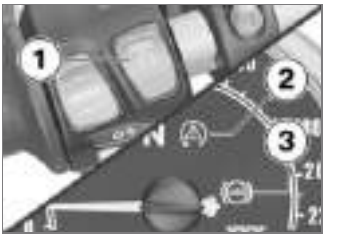
ABS indicator light lights up.

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

ABS indicator light continues to be lit up.

» ABS is deactivated.

Activating ABS



- Press and hold button **1** until first the ASC indicator and warning light **2** and then the ABS indicator and warning light **3** change their display behavior.

» The ASC setting remains unchanged.

ABS indicator light goes out, and starts to flash if self-diagnosis has not been completed.

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

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

min 6 mph (min 10 km/h)

Automatic Stability Control (ASC)

– with Automatic Stability Control (ASC)[OE]

Deactivating ASC

- Switching on ignition (⇒ 34).

NOTICE

The ASC function can also be deactivated while driving.◀

- Press and hold button **1** until the ASC indicator and warning light **2** changes its display behavior.

» The ABS setting remains unchanged.

ASC indicator and warning light starts to light up.

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

ASC indicator and warning light continues to be lit up.

» ASC is deactivated.

Switch on ASC

- Press and hold button **1** until the ASC indicator and warning light **2** changes its display behavior.

ASC indicator and warning light goes out, and starts to flash if self-diagnosis has not been completed.

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

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

» ASC 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)

Heated handlebar grips

– with heated grips OE

Operating heated grips

NOTICE

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

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 (➡ 66).

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

The handlebar grips can be heated at two different levels.

100 % heating output

Approx. 50 % heater output

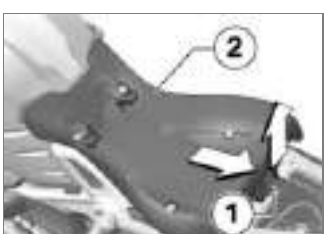
» The 2nd heating level is used for fast heat-up of the grips; then the switch should be switched back to the 1st level.

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

Rider's seat and tail-hump cover

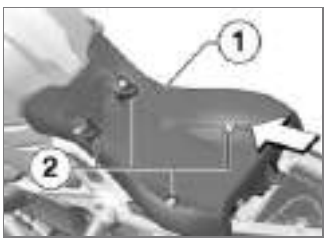
Remove rider's seat

- Removing tail-hump cover (➡ 51).



- Pull locking mechanism **1** upwards.
- Pull rider's seat **2** toward rear and remove.

Installing rider's seat

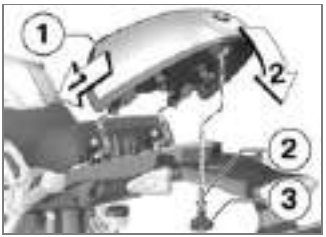


- Insert rider's seat **1** in the tabs **2**.
- Press down firmly on rear region of rider's seat **1**.

» Driver's seat clicks audibly into place.

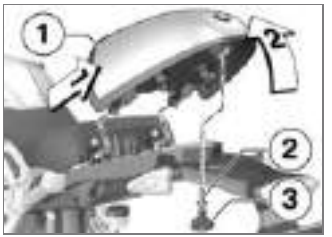
- Installing tail-hump cover (➡ 52).

Removing tail-hump cover



- Remove screw **1** using motorcycle seat key **2**.
- Remove the tail-hump cover **3** to the rear.

Installing tail-hump cover

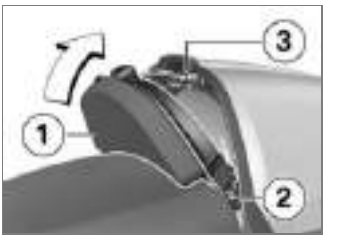


- Insert tail-hump cover **1** in retaining bracket, ensuring that the spacer buffers are seated in the tail-hump cover in the retaining bracket.
- Hand-tighten screw **2** using motorcycle seat key **3**.

Open tail-hump cover

- Pull backrest padding **1** up out of the center of the lock.

Close tail-hump cover



- Insert backrest padding **1** in mounts **2** of the tail-hump cover.
- Swing backrest padding **1** to the rear until the lock**3** can be heard to engage.

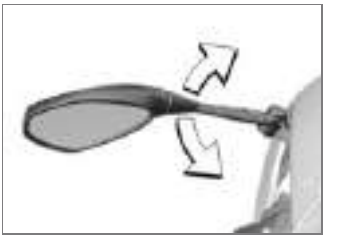
Setting

Mirrors

Adjusting mirrors

- Move mirror into desired position by twisting.

Adjusting mirror arm



- Swing mirror arm into desired position.

Headlight

Adjusting headlight for RHD/LHD traffic

This motorcycle's headlight features a symmetrical low beam. No special adjustments or procedures are required prior to operating the motorcycle in a country where traffic travels on the side of the road opposite to that of your home country (left-hand drive to right-hand drive or vice versa).

Headlamp range and spring preload

The headlamp range generally remains constant due to the adjustment of the spring preload to the loading state.
However, in the case of very high payloads, the available spring preload adjustment might not be adequate. 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.◀

Clutch

Adjusting clutch lever

WARNING

Modified position of the clutch fluid reservoir

Air in the clutch system

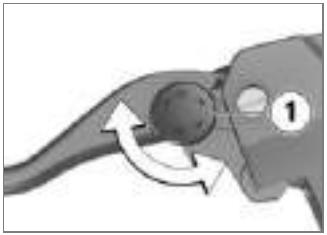
- Do not twist the handlebar fitting or the handlebars.◀

WARNING

Adjusting the clutch lever while driving

Accident hazard

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



- Rotate the adjusting screw **1** into the desired position by applying gentle pressure from the rear.

NOTICE

The adjusting screw is easier to turn if you push the clutch lever forwards.◀

» Adjustment options:

– From position 1: smallest distance between handlebar grip and clutch lever

– To position 5: largest distance between handlebar grip and clutch lever

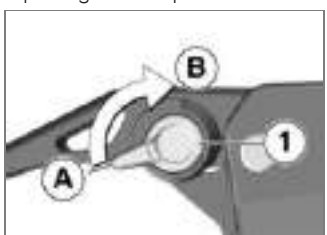
– with Option 719 Milled parts package Classic OE

or

– with Option 719 Milled parts package Storm OE

or

– with Option 719 Milled parts package Club Sport OE



- Turn adjusting lever **1** to the desired position.

» Adjustment options:

– From position **A**: smallest distance between handlebar grip and clutch lever.

– In 5 steps toward position **B** to enlarge the distance between

the handlebar grip and clutch lever.◁

Brakes

Adjust brake lever

WARNING

Modified position of the brake fluid reservoir

Air in the brake system

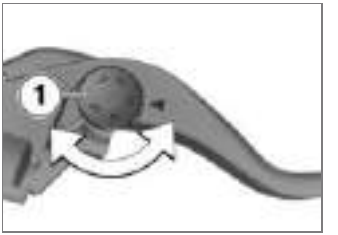
- Do not twist the handlebar fitting or the handlebars.◀

WARNING

Adjusting the brake lever while driving

Accident hazard

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



- Rotate the adjusting screw **1** into the desired position by applying gentle pressure from the rear.

NOTICE

The adjusting screw is easier to turn if you push the brake lever forwards.◀

» Adjustment options:

– From position 1: smallest distance between handlebar grip and brake lever

– To position 5: largest distance between handlebar grip and brake lever

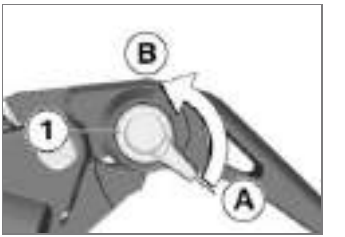
– with Option 719 Milled parts package Classic OE

or

– with Option 719 Milled parts package Storm OE

or

– with Option 719 Milled parts package Club Sport OE



- Turn adjusting lever **1** to the desired position.

» Adjustment options:

– From position **A**: smallest distance between handlebar grip and brake lever.

– In 5 steps toward position **B** to enlarge the distance between

the handlebar grip and brake lever.◁

Spring preload

Setting

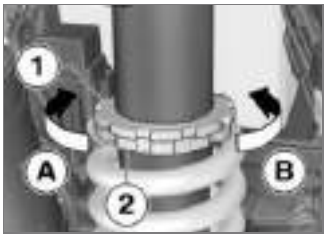
It is essential to set the spring preload to suit the load carried by the motorcycle. Increase spring preload when the vehicle is heavily loaded and reduce spring preload accordingly when the vehicle is lightly loaded.

Adjusting spring preload at rear wheel

Requirement

To adjust the spring preload, 2 hook wrenches are required, which are not contained in the toolkit, but which are, however, included in the delivery specification of the vehicle.

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



- To loosen the lock, turn adjustment ring **1** with the hook wrench in direction **B**, while securing adjustment ring **2** with the second hook wrench.
- To increase the spring preload, turn adjustment ring **2** with the hook wrench in direction **A**.
- To reduce the spring preload, turn adjustment ring **1** with the hook wrench in direction **B**.
- To lock, tighten adjustment ring **1** with the hook wrench in direction **A**, while securing adjustment ring **2** with the second hook wrench.
- Adjust damping to changed spring preload.
- Adjusting damping on rear wheel (57).

Damping

Setting

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.

CAUTION

Adjusting the spring strut damping when the silencer is hot

Burn hazard

- Allow the muffler to cool down.◀

CAUTION

Working with hot components

Burn hazard

- Wear protective gloves.◀

- Use vehicle tools to adjust damping via adjusting screw **1**.

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

Recommendation on chassis adjustment for one-up operation
11 mm (Spring preload)
Turn adjusting screw clockwise up to stop, then turn back by 1.75 turns (Damping)

Recommendation on chassis adjustment for two-up operation
21 mm (Spring preload)
Turn adjusting screw clockwise up to stop, then turn back by 0.5 turns (Damping)

Adjustable footrest system

– with Option 719 Milled parts package Classic OE

or

– with Option 719 Milled parts package Storm OE

or

– with Option 719 Milled parts package Club Sport OE

Adjusting the rotor

WARNING

Greater inclinations can lead ground contact of hard components when cornering.

Accident hazard

- Do not use the footrest as an indicator for critical inclinations.◀
- The rotor is adjusted in the same way on the left and right.
- The position of the rotor must have the same setting on the right and left.

- The foot distance and a higher foot position can be adjusted on the rotor **2**.
- Release the bolt **1** far enough that the rotor **2** can be pulled out.
- The rotor **2** is adjustable in 12 positions. To set the highest position, turn the rotor **2** to the left or right by 180°.

- Install the rotor **1** in the desired position and tighten the screw **2**.

Rotor on base plate
15 lb/ft (20 Nm)

WARNING

Incorrectly adjusted footrest due to the rotor being moved.

Accident hazard

- If the rotor is moved, the footrest adjustment must be adapted accordingly.◀

- The footrest can only fold upward and slightly backward.

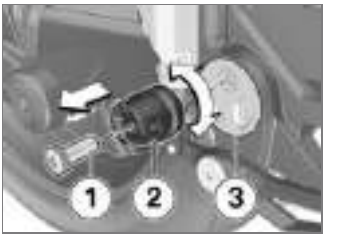
Adjusting the footrest joint

- The footrest joint is adjusted in the same way on the left and right.

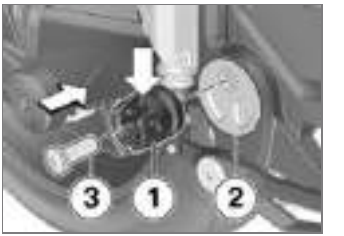
- Remove the screw **1** and the bolt **2**.
- Fold the footrest body **3** in the direction of the arrow.

» The spring is relaxed.

- Detach the spring **4** from the footrest joint **5**.



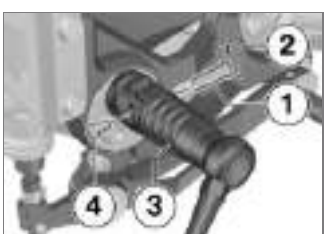
- Remove the screw **1**.
- Pull the footrest joint **2** from the rotor **3**.
- To change the position of the footrest joint **2**, turn it clockwise or counterclockwise.



- When ultimately installed on the rotor **2**, the opening **arrow** of the footrest joint **1 must** point upward or slightly to the rear and upward.
- Install screw **3**.
- Remove and install the footrest joint on the side of the switch unit in the same way.

Footrest joint on rotor
15 lb/ft (20 Nm)

- Attach the spring **1** to the eye on the footrest joint **3**.
- Fold the footrest body **2** upward in the footrest joint **3**.



- Install the bolt **1** with the flattened head **2** flush to the footrest joint and footrest body **3**.
- Fit screw **4**.
- Remove and install the footrest body on the side of the switch unit in the same way.

Footrest body on footrest joint
2 lb/ft (3 Nm)

Adjusting the footbrake lever foot piece

- The distance between the foot and the foot piece **1** can be adjusted by turning the foot piece into different positions.
- Remove the screw **2**.

- Clean the thread.
- Turn the foot piece **1** into the desired position.
- Install the **new** screw **2**.

Foot piece on footbrake lever
Thread-locking compound: micro-encapsulated
7 lb/ft (10 Nm)

Adjusting gearshift lever foot piece

- The distance between the foot and the foot piece **1** can be adjusted by turning the foot piece into different positions.
- Remove the screw **2**.

- Clean the thread.
- Turn the foot piece **1** into the desired position.
- Install the **new** screw **2**.

	Foot piece on gearshift lever
Thread-locking compound: micro-encapsulated	
7 lb/ft (10 Nm)	

Riding

Safety information

Rider's Equipment

The following clothing provides protection for you when driving:
– Helmet
– Rider's suit
– Gloves
– Boots

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

Correct loading

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, suspension damping rate settings and tire inflation pressures for the current gross motorcycle weight.
- Pack heavy pieces of luggage and cargo as low and as close to the center of the motorcycle as possible.

– with tank bag OA
- Observe maximum payload of tank rucksack.

 Payload of tank rucksack
≤11 lbs (≤5 kg)◁

– with rear bag OA
- Observe maximum payload of the rear bag.

 Payload of rear bag
max 22 lbs (max 10 kg)◁

Speed

If you ride at high speed, always bear in mind that various boundary conditions can adversely affect the handling of your motorcycle, e.g.:
– Incorrect settings of spring-strut and shock absorber system
– Unevenly distributed load
– Loose clothing
– Insufficient tire inflation pressure
– Tire tread in poor condition
– Attached luggage systems, such as a tank bag or rear bag. Observe the maximum permissible speed indicated on the label in the respective luggage system.

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.◀

Checklist

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.
- Check clutch function (➡ 93).
- Check tire tread depth (➡ 94).
- Checking tyre pressure (➡ 93).
- Check secure hold of cases and luggage.

At every third refueling stop

- Adjusting damping on rear wheel (➡ 57).
- Check engine oil level (➡ 87).
- Check front brake pad thickness (➡ 89).
- Check rear brake pad thickness (➡ 90).
- Checking the front brake fluid level (➡ 91).
- Checking rear brake fluid level (➡ 92).

Starting

Starting engine

- Switching on ignition (➡ 34).

» Pre-Ride-Check is carried out. (➡ 67)

» ABS self-diagnosis is performed. (➡ 68)

- 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.◀

- During cold start and at low temperatures:

» Pull clutch.

- Press starter button **1**.

NOTICE

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

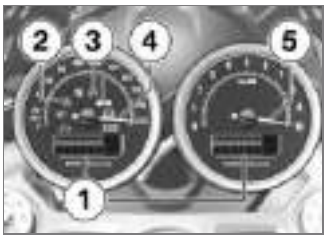
More detailed information can be found in the "Maintenance" chapter under "Jump-starting".◀

» Engine starts.
» Consult the troubleshooting chart if the engine refuses to start. (122)

Pre-Ride Check

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

Phase 1



All segments are shown in the displays **1**.
At the same time, all indicator and warning lights **3** are switched on.

Phase 2

The general warning light **2** changes from lighting up to flashing.
The needle **4** for the speedometer moves to the maximum speed.
The needle **5** for the speed moves to the maximum speed.

Phase 3

The needle **4** for the speedometer moves to zero.
The needle **5** for the speed moves to zero.
The indicator and warning lights go out or adopt their functions for operation.

The display reverts to the standard format. The onboard computer is displayed.

If the needles do not move, an indicator and warning light does not switch on or there are segments missing in the display:
- 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

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.

– with Automatic Stability Control (ASC) OE


ASC indicator and warning light flashes slowly.◁

Phase 2

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

– with Automatic Stability Control (ASC)[OE]

 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.

Running in

Engine

- In the period preceding the initial inspection attempt to change rpm and engine load as frequently as possible, avoiding extended periods at constant rpm.
- Choose curvy, slightly hilly sections of road if possible.
- Pay attention to the load condition when running in.

Load condition when breaking in
no full throttle (Odometer reading 0...621 miles (0...1000 km))

- Observe the engine run-in speeds.

Engine run-in speed
<5000 min^{-1} (Mileage 0...621 miles (0...1000 km))

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

Mileage until first running-in check
311...746 miles (500...1200 km)

Brake pads

New brake pads have to be broken in before they can achieve their optimum frictional 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.◀

Tyres

New tires have a smooth surface. This must be roughened by riding in a restrained manner at various lean angles until the tires are run in. Only once the surface has been roughened can the tires 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.◀

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 on 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 progressively greater levels of 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. The frequently-practiced procedure for emergency braking, in which maximum brake pressure is applied as rapidly as possible, produces deceleration rates that rise more quickly than the dynamic weight transfer occurs. As a result, the full brake pressure cannot be transferred to the road.
Locking up of the front wheel is prevented by BMW Motorrad ABS.

WARNING

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.◀

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 disks 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 motorcycle.
– 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.◀

Parking your motorcycle

Side stand

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.◀

- Switch off engine.

- Press the side stand on the stand plate **1** down and fold out in the direction of arrow.
- Park the motorcycle.
- If the slope of the road permits, turn the handlebars to the left.
- On slopes point the motorcycle uphill and engage 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” - comply with the current standard in each case.

Recommended fuel quality
Normal unleaded 87 AKI (91 ROZ/RON) 87 AKI

Alternative fuel quality
Midgrade unleaded fuel (slight reduction in performance and potentially higher consumption) - premium grade unleaded fuel (max. 10 % ethanol, E10) 89...91 AKI (95...98 ROZ/RON) 90...93 AKI

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 overfilled fuel tank

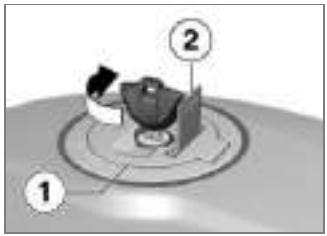
- If the fuel tank is overfilled, the excess fuel will flow into the carbon canister and lead to component damage there.
- Only fill the fuel tank to the lower edge of the fuel filler neck.◀

ATTENTION

Contact of fuel and plastic surfaces

Damage to surfaces (become unattractive or cloudy)

- Immediately clean plastic surfaces after contact with fuel.◀
- Park motorcycle, ensuring that support surface is firm and level.



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

- Refuel with a fuel meeting the specifications below, continu-

ing until fuel is no higher than lower edge of filler neck **3**.

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.◀

Fuel level
Approx. 4.5 gal (Approx. 17.0 l)

Fuel reserve
Approx. 3.7 quarts (Approx. 3.5 l)

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

Securing motorcycle for transport

- Protect against scratching all components where tensioning straps are routed. 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.

ATTENTION

Pinching of components

Component damage

- Do not pinch components, e.g. brake lines or wiring harnesses.◀
- Lay straps at front over lower fork bridge on both sides.
- Tension straps downward.
- Fasten tensioning straps at rear on both sides of frame and tension.
- Tighten all straps evenly.

» The vehicle is pulled down against its springs with the suspension compressed strongly.

Technology in detail

General instructions

More information on the topic of technology is available at:
bmw-motorrad.com/technology

Antilock Brake System (ABS)

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 brake pressure is exceeded when the driver increases the brake pressure, the wheels begin to lock and driving stability is lost; this could result in a fall. Before this situation 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?

Rough roads can briefly lead to a loss of contact between the tires and the road surface. The transferable braking force is then reduced to zero. If braking is carried out in this situation, ABS must reduce the brake pressure to ensure driving stability when restoring contact to the road. At this point in time, ABS must assume extremely low friction coefficients (gravel, ice, snow) so that the wheels turn in every imaginable case and driving stability is ensured. After detecting the actual conditions, the system adjusts the optimum brake pressure.

Lifting off rear wheel

During extremely heavy and rapid decelerations it is possible that the BMW Motorrad ABS cannot prevent the rear wheel from lifting off the ground. In these cases, the motorcycle can also flip end over end.

WARNING

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 ABS?

The BMW Motorrad ABS ensures driving stability on any surface within the limits of driving physics.
The system is not optimized for the special conditions encountered under extreme weather during off-road and race-track use.

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 completed 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:
– Riding on rear wheel (wheelie) for a longer period
– Rear wheel spinning when stationary with front brake engaged (burn out)
– Heating up on the main or additional stand at idle or with gear engaged
– Blocked rear wheel for an extended period of time, e.g., when riding downhill offroad

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

Brake system not regularly serviced

Accident hazard

- To ensure that the BMW Motorrad ABS is in a properly maintained condition, it is vital that the specified service intervals are kept to.◀

Reserves for safety

The potentially shorter stopping distances which BMW Motorrad 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.◀

Automatic Stability Control (ASC)

How does ASC work?

– with Automatic Stability Control (ASC)[OE]

BMW Motorrad ASC compares the wheel speeds of the front and rear wheels. Differences in the relative rotation speeds allow the system to determine the slip rate, and thus the stability reserves at the rear wheel. The engine management system adapts the engine torque when the slip limit is exceeded.

Special situations

– with Automatic Stability Control (ASC)[OE]

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

The system compares the rotation speeds of the front and rear wheels to detect any tendency for the rear wheel to spin or lose traction. If the system registers implausible data for an extended period of time it will deactivate the ASC functionality as safety precaution and a display will alert you to an ASC error. A self-diagnosis routine must be completed before the error will be displayed.

In the following unusual driving conditions, the BMW Motorrad ASC may possibly switch off automatically.

Unusual riding conditions:
– Riding on the rear wheel (wheelie) for an extended period with ASC deactivated
– Rear wheel rotating with the vehicle held stationary by applying the front brake (burnout)
– Heating up on the main or additional stand at idle or with gear engaged

ASC is reactivated by turning the ignition off and on and then riding at a speed above 3 mph (5 km/h).

If the front wheel loses contact with the ground under extreme acceleration, the ASC reduces the engine torque, maintaining the reduction until the front

wheel makes contact with the ground again.
BMW Motorrad recommends that you respond to this condition by twisting back the throttle grip somewhat to return to stable dynamic operating conditions 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's braking torque could cause the rear wheel to lock, resulting in unstable motorcycle conditions. BMW Motorrad ASC is unable to intervene effectively under these conditions.

Slippery roads

On very loose surfaces (e.g. sand or snow) the control interventions of the ASC can reduce the driving power at the rear wheel to such a degree that the rear wheel no longer turns sufficiently. In this case, BMW Motorrad recommends switching off the ASC temporarily.
Bear in mind that the rear wheel will spin on the loose surface and close the throttle in good time before you reach a firm surface. Then switch on the ASC again.

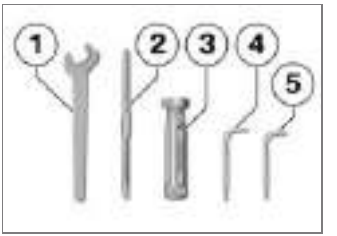
Maintenance

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 Open-ended wrench
Wrench size: 14
– Adjusting mirror arm (➠ 54).

2 Reversible screwdriver insert
with Phillips and straight blade
– Adjusting damping on rear wheel (➠ 57).
– Replacing front and rear turn indicator light sources (➠ 105).

3 Screwdriver handle
– Topping up engine oil (➠ 88).
– Use with screwdriver insert

4 Torx wrench, T25
– Disconnect positive battery terminal.

5 Torx wrench T20
– Replacing low and high-beam light sources in headlight (➠ 103).
– Replacing parking light light source (➠ 104).

Front wheel stand

Mount front wheel stand

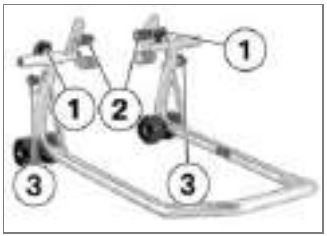
ATTENTION

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

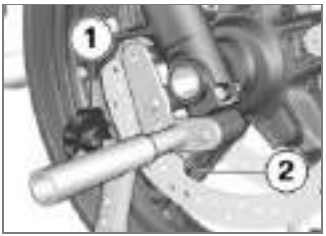
Component damage cause by tipping over

- Place the motorcycle on the center stand or an auxiliary stand before lifting it with the BMW Motorrad front wheel stand.◀
- Place motorcycle on an auxiliary stand; BMW Motorrad recommends the BMW Motorrad auxiliary stand.
- Installing rear-wheel stand (86).
- Use basic stand with front wheel mount.

» The basic stand and its accessories are available through your authorized BMW Motorrad retailer.



- Loosen clamping bolt **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 clamping bolts **1**.

ATTENTION

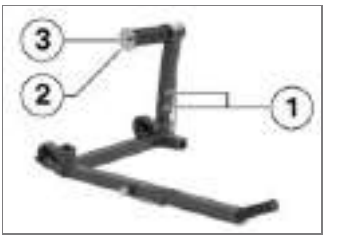
Center stand retracts if motorcycle is lifted too high.
Component damage cause by tipping over

- 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.

Rear-wheel stand

Installing rear-wheel stand

- Park motorcycle, ensuring that support surface is firm and level.
- Use rear-wheel stand with rear wheel adapter. The rear-wheel stand and its accessories are available through your authorized BMW Motorrad retailer.



- Set desired height of rear-wheel stand using screws **1**.

- Push the rear-wheel stand from the right onto the rear axle.
- Apply the retaining disk from the left; to do so, press the unlock button.

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.◀
- Position motorcycle upright while simultaneously pressing grip of stand back so that both stand rollers rest on ground.
- Then press the grip down to the ground.

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.
- Make sure ground is level and firm and hold motorcycle vertically.
- Wait five minutes to allow oil to drain to the oil pan.

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

Specified level of engine oil	
Between the **MIN** and **MAX** marks	

If oil level is below MIN mark:
- Topping up engine oil (88).

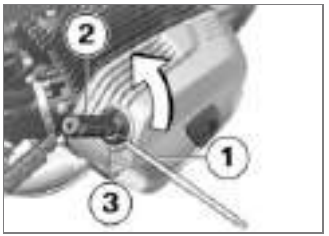
If oil level is above MAX mark:
- Have oil level corrected at an authorized service facility, preferably an authorized BMW Motorrad retailer.

NOTICE

To reduce the environmental impact, BMW Motorrad recommends checking the engine oil after every journey of at least 50 km.◀

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**, Phillips end first, into the screwdriver handle **2** (from onboard toolkit).
- Position the tool on the cap **3** and turn it counter-clockwise.
- Remove cap **3** of oil fill location.

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

- Check engine oil level (87).
- Install the cap **3**.

Brake system

Check brake operation

- Operate the brake lever.
» There is a clearly perceptible pressure point.
- Actuate the footbrake lever.
» There is a clearly perceptible pressure point.

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

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.◀
- 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.)

- Check the wear indicators.

If the wear indicators are no longer clearly visible:
- Have brake pads replaced at an authorized service facility, preferably an authorized BMW Motorrad retailer.

Check rear brake pad thickness

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

- Conduct a visual inspection of the brake pad thickness. Direction of view: from left to brake caliper **1**.

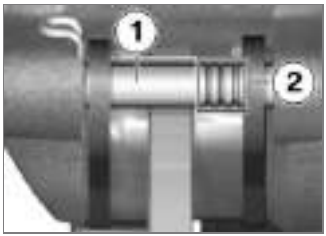
If the brake disc **2** is visible:

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

	Rear brake-pad wear limit
0.04 in (1.0 mm) (Only friction material without carrier plate. Brake disk must not be visible through bore hole of inner brake pad.)	

Brake pad wear

The rear brake has a brake-pad wear indicator.



Shaft **1** with three marker rings **2** is between the brake pads.

How to interpret the marks:

– 3 rings visible: brake pad thickness is at least 75 %
– 2 rings visible: brake pad thickness is at least 50 %
– 1 ring visible: brake pad thickness is at least 25 %
– No rings visible: brake pads are worn to the wear limit; check as described above.

Checking the 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 hold motorcycle vertically.

- Align handlebars so that brake fluid reservoir is positioned horizontally.
- Check the brake fluid level in the sight glass **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.

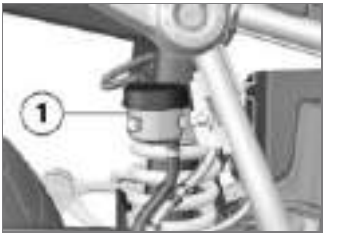
Checking rear brake fluid level

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 hold motorcycle vertically.



- Check brake fluid level in 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** marking. (Brake fluid reservoir horizontal)

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

Check clutch function

- Pull back the clutch lever.

» There is a clearly perceptible pressure point.

If no clear pressure point can be felt:

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

Tires

Checking tyre pressure

WARNING

Incorrect tire inflation pressure

Poorer handling characteristic of motorcycle, reduction of tire service life

- Ensure proper tire inflation pressure.◀

WARNING

Valve inserts open of their own accord 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 tyre pressures against data below.

Tire pressure, front
36.3 psi (2.5 bar) (One-up and use with passenger, on cold tire)

 Tire pressure, rear
39.2 psi (2.7 bar) (One-up, with cold tires)
42.1 psi (2.9 bar) (Two-up riding, with cold tires)

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

Rims and tires

Checking wheel 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.

Checking spokes

– with 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.

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.
- Measure 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 indicated 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.

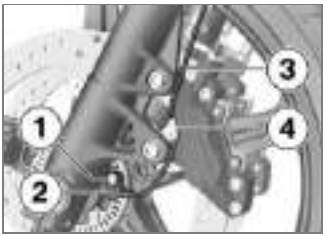
Wheels

Affect of wheel size on ABS

Wheel sizes greatly affect the function of the ABS system. 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 comfort of these systems.
The sensor rings are essential for correct wheel speed detection; they too must match the motorcycle's control systems and consequently cannot be replaced.
If you 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.

Removing front wheel

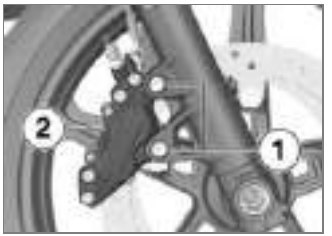
- Place the motorcycle on an auxiliary stand. BMW Motorrad recommends you use the BMW Motorrad rear-wheel stand.
- Installing rear-wheel stand (➡ 86).
- Raise front of motorcycle, preferably using a BMW Motorrad front wheel stand, continuing until the wheel rotates freely.
- Mount front wheel stand (➡ 84).
- Mask off the parts of the wheel rim that could be scratched when removing the brake caliper.



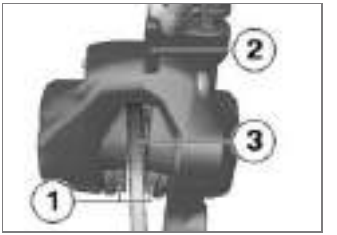
- Remove the screw **1**.
- Loosen the wheel speed sensor **2**.
- Loosen the cable **3** from the bracket **4**.

- Remove screws **1**.

- Loosen the left-hand brake caliper **2**.



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



- Push brake pads **1** slightly apart by turning the brake caliper **2** back and forth against the brake rotor **3**.

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.◀

- Carefully pull brake calipers back and outward to remove them from brake rotors.

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

- Pull quick-release axle **3** out while supporting the front wheel.
- Place front wheel down and roll it forward out of the front suspension.

- Remove spacer bushing **4** from the wheel hub.

Install 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.◀

- Lubricate the contact surface on the spacer bush **4**.

Lubricant
Optimoly TA

- Install the spacer bush **4**.

ATTENTION

Front wheel installation opposite the running direction
Accident hazard
- Observe running direction arrows on tire or rim.◀
- Roll front wheel into front suspension.

- Lubricate quick-release axle **3**.

Lubricant
Optimoly TA

WARNING

Improper installation of quick-release axle
Loosening of the front wheel
- After the brake caliper is fastened and the spring fork is relaxed, tighten the quick-release axle and axle clamping with the specified torque.◀

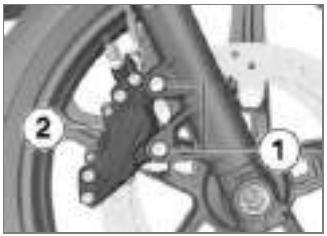
- Lift the front wheel and install the quick-release axle **3**.

- Install screw **2**. Brace quick-release axle on the right side at the same time.

Screw on quick-release axle
37 lb/ft (50 Nm)

- Tighten the clamping bolts **1** on left and right to the appropriate torque.

Clamping screw in axle adapter
Tightening sequence: tighten the screws 6 times, alternating between one and the other each time
14 lb/ft (19 Nm)

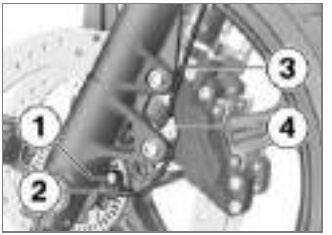


- Position brake caliper **2** on right and install screws **1**.

Brake caliper on telescopic forks
28 lb/ft (38 Nm)

- Position the left-hand brake caliper **2** and install the screws **1**.

Brake caliper on telescopic forks
28 lb/ft (38 Nm)



- Position wheel speed sensor **2**.
- Install screw **2**.
- Fasten the cable **3** in the bracket **4**.
- Engage the brakes repeatedly, continuing until the brake pads seat against the rotors.
- Remove the adhesive tape from the wheel rim.
- Remove front wheel stand.
- Extend side stand.

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.◀
- Remove rear wheel stand.
- Place motorcycle on its side stand.

Removing rear wheel

- Raise motorcycle, preferably with a BMW Motorrad rear-wheel stand.
- Installing rear-wheel stand (86).
- Shift into first gear.

- Remove screws **1** while supporting wheel.

ATTENTION

Using hard or sharp-edged objects near the component

Component damage

- Do not scratch components, if necessary tape off or cover.◀
- Raise rear wheel, swing out to left rear and remove.

Installing 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.◀
- Clean wheel centering and contact surfaces.

ATTENTION

Using hard or sharp-edged objects near the component

Component damage

- Do not scratch components, if necessary tape off or cover.◀
- Mount rear wheel from left rear and position on wheel carrier.

- Install the screws **1**.

	Rear wheel on wheel carrier
Tightening sequence: tighten crosswise	
44 lb/ft (60 Nm)	

Headlight

Removing center fairing panel

- Remove screws **1** and remove center trim panel.

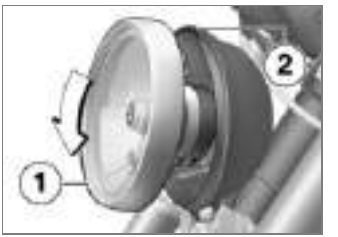
Removing the reflector

- Switch off ignition (35).
- Park motorcycle, ensuring that support surface is firm and level.
- Removing center fairing panel (101).

- Loosen screw **1** with several rotations.
- Carefully pull reflector **2** forward in the lower area in direction **arrow** and lift off.

» Light sources can be replaced.

Installing the reflector



- Position the reflector **1** behind the lug **2** and swivel downward.
- Align the reflector **1** in the center.

WARNING

Bent clamp due to application of force on the lamp housing

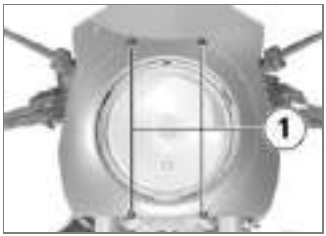
Risk of accident due to improper fastening of the reflector

- Avoid applying excessive force.◀
- Press screw **2** upward with screwdriver.
- Swivel the reflector toward the rear.

» Clamp **1** engages in the housing.

- Tighten screw **2**.

Installing the center trim panel

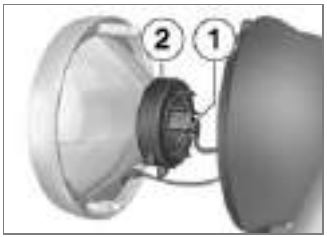


- Fit center trim panel and install screws **1**.

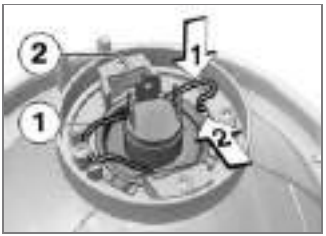
Light sources

Replacing low and high-beam light sources in headlight

- Switch off ignition (➡ 35).
- Park motorcycle, ensuring that support surface is firm and level.
- Removing center fairing panel (➡ 101).
- Remove reflector (➡ 101).



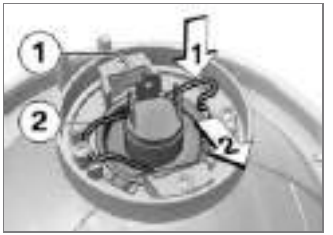
- Disconnect connector **1** for high and low beams.
- Pull off rubber cap **2** from light housing.



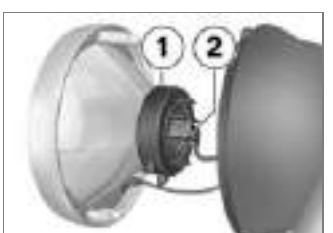
- Press wire spring clip **1** down and swivel out of the locking to the side, then fold wire spring clip up.
- **Carefully** remove light source **2** for low and high beams from the lamp housing.
- Replace defective light source.

Bulb for low-beam and high-beam headlight
H4 / 12 V / 60/55 W

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



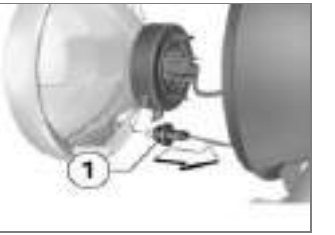
- Insert light source **1** into the light housing.
- Fold wire spring clip **2** closed and swivel into the locking.



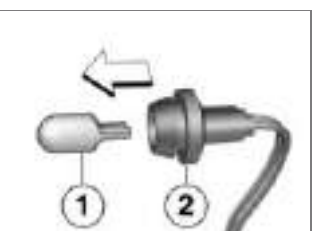
- Slip on rubber cap **1**.
- Connect connector **2** for high and low beams.
- Install reflector.
- Installing the center trim panel (➠ 103).

Replacing parking light light source

- Switch off ignition (➠ 35).
- Park motorcycle, ensuring that support surface is firm and level.
- Removing center fairing panel (➠ 101).
- Remove reflector (➠ 101).



- Remove socket **1** for side light from light housing.

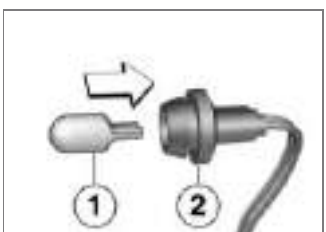


- Pull light source **1** out of socket **2**.

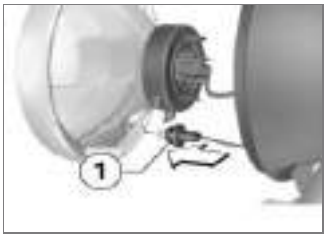
- Replace defective light source.

	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 light source **1** for parking lamps into socket **2**.



- Insert socket **1** for parking lamps into lamp housing.
- Install reflector.
- Installing the center trim panel (➡ 103).

Replacing front and rear turn indicator light sources

- Switch off ignition (➡ 35).
- Park motorcycle, ensuring that support surface is firm and level.

- Remove the screw **1**.

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

- Remove the light source **1** 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 the light source **1** by turning it clockwise.

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

- Fit the screw **1**.

Replacing LED tail light

If the LEDs in the tail lamp fail, the tail lamp must be replaced. In this case:

- Contact an authorized service facility, 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.
- Removing tail-hump cover (➡ 51).
- Remove rider's seat (➡ 51).

- Unclip cover panel **1** at bottom (**arrow**) and lift off.

- Begin by connecting one end of the red jumper cable to the auxiliary terminal for jump starting **1** on the discharged battery and the other end to the posi-

tive terminal of the donor battery.
- Use the black jump lead to connect the ground support point **2** to the negative terminal of the second battery.
- Allow engine on support motorcycle to run while jump-starting.
- 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.

NOTICE

To start the engine, do not use start sprays or similar items.◀

- Allow both engines to idle for a few minutes before disconnecting jumper cables.
- First, disconnect the jump lead from the ground support point **2** and then from the positive battery connection point **1**.

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 surface of battery clean and dry.
– Do not open battery.
– Do not top up with water.
– Observe the notes on charging on the following pages.
– Do not turn 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 a connected 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.◀
- Disconnect any devices connected to the socket.
- Comply with operating instructions of charger.
- Charge the battery connected to the vehicle using the socket.

NOTICE

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

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.◀

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

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.◀
- Charge a disconnected battery directly on the terminals.

Charging a 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.◀

Replacing battery

Contact a specialist workshop, preferably an authorized BMW Motorrad retailer, if the battery is faulty.

Fuses

Replace fuses

ATTENTION

Bypassing defective fuses

Risk of short circuit and fire

- Do not bypass defective fuses.
- Replace defective fuses with new fuses.◀
- Turn off ignition.
- Park motorcycle, ensuring that support surface is firm and level.
- Removing tail-hump cover (➠ 51).
- Remove rider's seat (➠ 51).

- Press hook **1**.

» The fuse box is unlocked and can be pulled to the left and released from the bracket **2**.

- Pull fuse box out of bracket **2**.
- Press locking mechanism **4** on both sides and remove cap **3**.

NOTICE

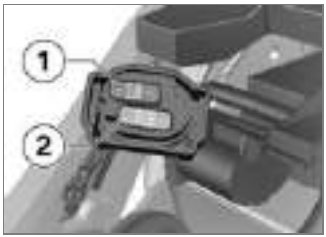
If the fuses blow frequently, have the electrical system checked by an authorized specialized workshop, preferably an authorized BMW Motorrad retailer.◀

- Replace defective fuse in accordance with following fuse assignment diagram.

» Fuse assignments (➠ 111)

- Install cap **3** again. Make sure that the locking mechanism **4** engages.
- Slide fuse box into bracket **2** until hook **1** engages.
- Installing rider's seat (➠ 51).
- Installing tail-hump cover (➠ 52).

Fuse assignments



Fuse 1
10 A (Instrument cluster, DWA anti-theft alarm system, ignition switch, on-board diagnostic socket, coil for cut-off relay)

Fuse 2
7.5 A (DSC control unit, engine control unit, output for cut-off relay, speedometer, rotational-speed sensor, alternator)

Diagnostic 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.◀

- Removing tail-hump cover (▬ 51).
- Remove rider's seat (▬ 51).

- Press locking mechanisms **1**.
- Remove the diagnostic connector **2** from the bracket **3**.

» The diagnosis and information system interface can be con-

nected at the diagnostic connector **2**.

Secure the data link connector

- Disconnect the diagnosis and information system interface.

- Seat diagnostic connector **2** into the bracket **3**.

» The locks **1** engage.

- Installing rider's seat (➠ 51).
- Installing tail-hump cover (➠ 52).

Accessories

General instructions

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

Information on using onboard power sockets:

Automatic deactivation

The power sockets are automatically deactivated under the following conditions:

– If the battery voltage falls below the level required to start the vehicle
– If the maximum load capacity specified in the technical data is exceeded
– During the starting operation

Connection of electrical devices

The ignition must be switched on before electrical devices connected to the power sockets can be operated. To reduce loads on the onboard electrical system the sockets are deactivated no more

than 15 minutes after the ignition is switched off.

Cable routing

Observe the following when routing cable from power sockets to additional devices:

– Cables must not hinder the driver's movement.
– Cables must not restrict the steering angle and driving characteristics.
– Cables must not become trapped.

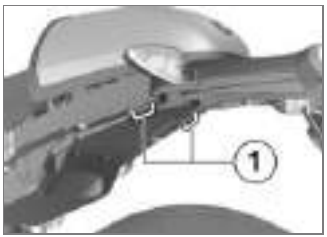
Luggage

Secure luggage on motorcycle

WARNING

Reduced riding stability caused by overloading and uneven loading
Accident hazard

- Do not exceed the gross weight limit and observe the loading information.◀



- Secure luggage (for example rear bag) on lashing points **1**.

» Additional information on the luggage system and its attachment is available from your authorized BMW Motorrad retailer.

Optional accessory

Your authorized BMW Motorrad Retailer offers you qualified advice in choosing genuine BMW parts, accessories and other products such as aluminum humps or covers for the rear frame.
You will find all BMW Motorrad optional accessories on our website: **"www.bmw-motorrad.com"**.

Care

Care products

BMW Motorrad recommends that you use cleaning and care products available at your authorized BMW Motorrad retailer. BMW Motorrad 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 motorcycle, 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.◀

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.

Headlight glass and plastic lenses

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

Clean chrome sections carefully with plenty of water and a solvent cleaner from the BMW Motorrad Care Products range. This is required in particular for removing road salt. Use chrome polish for additional treatment.

Radiator

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

ATTENTION

Bending of radiator fins

Damage to radiator fins

- When cleaning, ensure that the cooler fins are not bent.◀

Rubber

Treat rubber parts 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. We recommend you use BMW Motorrad gloss polish or a BMW paint cleaning agent.
Contamination on the paint finish is particularly easy to see after the motorcycle has been washed. Remove such marks as soon as possible using white spirit or methylated spirits on a clean cloth or cotton pad. 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

BMW Motorrad recommends applying BMW car wax or products containing carnauba wax or synthetic wax to preserve your paintwork.
When water fails to form beads on the paint surface this indicates it is time to apply wax.

Store motorcycle

- Completely fill the motorcycle's fuel tank.
- Clean the motorcycle.
- Remove battery.
- Spray brake and clutch lever, and side stand pivots with a suitable lubricant.
- Coat 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.

Return motorcycle to use

- Remove the protective wax coating.
- Clean the motorcycle.
- Install a charged battery.
- Observe checklist (66).

Technical data

Troubleshooting chart

Engine does not start.

Possible cause	Remedy
Side stand is extended and gear is engaged.	Fold in side stand.
Gear is engaged and clutch is not operated.	Place transmission in neutral or disengage clutch.
Fuel tank is empty.	Refueling (→ 72).
Battery is flat.	Charging a connected battery (→ 109).
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.

Screw connections

Front wheel	Value	Valid
Brake caliper on telescopic forks		
M10 x 40 x 1.25	28 lb/ft (38 Nm)	
Clamping screw in axle adapter		
M8 x 35	**Tightening sequence: tighten the screws 6 times, alternating between one and the other each time**	
	14 lb/ft (19 Nm)	

Rear wheel	Value	Valid
Rear wheel on wheel carrier		
M10 x 53 x 1.25	**Tightening sequence: tighten crosswise**	
	44 lb/ft (60 Nm)	

Mirror arm	Value	Valid
Mirror on front panel carrier		
M6 x 16	6 lb/ft (8 Nm)	

Fuel

Recommended fuel quality	Normal unleaded 87 AKI (91 ROZ/RON) 87 AKI
Alternative fuel quality	Midgrade unleaded fuel (slight reduction in performance and potentially higher consumption) - premium grade unleaded fuel (max. 10 % ethanol, E10) 89...91 AKI (95...98 ROZ/RON) 90...93 AKI
Fuel level	Approx. 4.5 gal (Approx. 17.0 l)
Fuel reserve	Approx. 3.7 quarts (Approx. 3.5 l)
Permissible fuel filling quantity	max 4.5 gal (max 17 l), during transport
Fuel consumption	44 mpg (5.3 l/100 km), according to WMTC

Engine oil

Engine oil, capacity	Approx. 1 gal (Approx. 3.95 l), with filter replacement
Specification	SAE 15W-50, API SJ/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 Pro Oil
Engine oil, quantity for topping up	max 0.5 quarts (max 0.5 l), Difference between MIN and MAX

BMW recommends ADVANTEC ORIGINAL BMW ENGINE OIL

Engine

Engine number location	On crankcase at lower right, below starter motor
Engine type	12 2E J
Engine design	Air-/oil-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	12.0:1
Rated output	110 hp (81 kW), at engine speed: 7750 min^{-1}
Torque	86 lb/ft (116 Nm), at engine speed: 6000 min^{-1}
Maximum engine speed	max 8500 min^{-1}
Idle speed	$1150^{\pm 50}$ min^{-1}, Engine at operating temperature
Emission standard	Euro 4

Clutch

Clutch design	Single-plate dry clutch

Transmission

Transmission design	Helical 6-gear transmission with integrated torsional vibration damper, claw shift via sliding sleeves
Transmission gear ratios	1.737, Primary gear ratio 2.375 (38:16 teeth), 1st gear 1.696 (39:23 teeth), 2nd gear 1.296 (35:27 teeth), 3rd gear 1.065 (33:31 teeth), 4th gear 0.939 (31:33 teeth), 5th gear 0.848 (28:33 teeth), 6th gear

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	2.910 (32/11 teeth)

Frame

Frame design	Lattice-tube frame with supporting drive unit
Location of type plate	Frame at front left on steering head
Location of the vehicle identification number	Main frame at lower front right

Chassis and suspension

Front wheel	
Type of front suspension	Telescopic forks
Spring travel, front	4.9 in (125 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
Spring travel at rear wheel	4.7 in (120 mm)
Recommendation on chassis adjustment for one-up operation	11 mm, Spring preload Turn adjusting screw clockwise up to stop, then turn back by 1.75 turns, Damping
Recommendation on chassis adjustment for two-up operation	21 mm, Spring preload Turn adjusting screw clockwise up to stop, then turn back by 0.5 turns, Damping

Brakes

Front wheel	
Type of front brake	Hydraulically operated two-rotor disk brake with 4-piston fixed calipers and floating brake discs
Front brake pad material	Sintered metal
Front brake-disk thickness	min 0.16 in (min 4 mm), Wear limit
Rear wheel	
Type of rear brake	Hydraulically operated disc brake with 2-piston floating caliper and fixed brake disc
Rear brake pad material	Organic
Rear brake-disk thickness	min 0.18 in (min 4.5 mm), Wear limit

Wheels and tires

Speed category of front/rear tires	V, minimum requirement: 149 mph (240 km/h)
Front wheel	
Front wheel design	Aluminum cast wheel
– with spoke wheels OE	Spoked wheel
Front-wheel rim size	3.5" x 17"
Front tire designation	120/70 ZR 17
Load index for front tire	58
Front wheel load at unladen weight	243 lbs (110 kg)
Permissible front wheel load	max 397 lbs (max 180 kg)
Permissible front-wheel imbalance	max 0.2 oz (max 5 g)
Rear wheel	
Rear wheel design	Aluminum cast wheel
– with spoke wheels OE	Spoked wheel
Rear-wheel rim size	5.50" x 17"
Rear tire designation	180/55 ZR 17

Load index for rear tire	73
Rear wheel load at unladen weight	243 lbs (110 kg)
Permissible rear wheel load	max 661 lbs (max 300 kg)
Permissible rear-wheel imbalance	max 0.2 oz (max 5 g)
Tire inflation pressures	
Tire pressure, front	36.3 psi (2.5 bar), One-up and use with passenger, on cold tire
Tire pressure, rear	39.2 psi (2.7 bar), One-up, with cold tires 42.1 psi (2.9 bar), Two-up riding, with cold tires

Electrical system

Fuses	
Fuse 1	10 A, Instrument cluster, DWA anti-theft alarm system, ignition switch, on-board diagnostic socket, coil for cut-off relay
Fuse 2	7.5 A, DSC control unit, engine control unit, output for cut-off relay, speedometer, rotational-speed sensor, alternator
Electrical rating of onboard socket	5 A

Battery	
Battery design	AGM (Absorptive Glass Mat) battery
Battery voltage	12 V
Battery capacity	12 Ah
Spark plugs	
Spark plugs, manufacturer and designation	NGK MAR8B-JDS
Electrode gap of spark plug	0.03 in (0.8 mm)
Bulbs	
Bulb for low-beam and high-beam headlight	H4 / 12 V / 60/55 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

Dimensions

Motorcycle length	82.9 in (2105 mm), measured above rear wheel
Motorcycle height	43.5 in (1105 mm), measured above mirror, at DIN unladen weight
Motorcycle width	36.2 in (920 mm), measured with mirror
Rider's seat height	31.7 in (805 mm), measured without rider, at DIN unladen weight
Rider's inside-leg arc, heel to heel	70.3 in (1785 mm), measured without rider, at DIN unladen weight

Weights

Vehicle curb weight	485 lbs (220 kg), DIN unladen weight, ready for road, 90 % full tank of gas, without OE
Permissible gross weight	948 lbs (430 kg)
Maximum payload	463 lbs (210 kg)

Performance data

Top speed	>124 mph (>200 km/h)

Service

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

As the owner of a new BMW motorcycle, you can benefit from the protection afforded by the various BMW Motorrad mobility services in the event of a breakdown (e.g., BMW Roadside Assistance, breakdown service, vehicle recovery service).
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 the motorcycle over to you.

BMW running-in check

The BMW running-in check must be carried out between 300 mi (500 km) and 750 mi (1200 km).

BMW Service

BMW service is carried out once a year. The scope of the services performed may be dependent on the vehicle 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 mileage is reached before the next service appointment, service must be performed sooner.

The service display in the multifunction display reminds you of the next service appointment 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 schedule.

	500 - 1200 km 300 - 750 mls	**10 000 km** 6 000 mls	**20 000 km** 12 000 mls	**30 000 km** 18 000 mls	**40 000 km** 24 000 mls	**50 000 km** 30 000 mls	**60 000 km** 36 000 mls	**70 000 km** 42 000 mls	**80 000 km** 48 000 mls	**90 000 km** 54 000 mls	**100 000 km** 60 000 mls	**12 months**	**24 months**
①	X												
②												X	
③		X	X	X	X	X	X	X	X	X	X	X[a]	
④			X		X		X		X		X		X[b]
⑤		X	X	X	X	X	X	X	X	X	X		
⑥					X				X			X[c]	X[c]
⑦			X		X		X		X		X		
⑧			X		X		X		X		X		
⑨					X[d]				X[d]				
⑩		X	X	X	X	X	X	X	X	X	X		
⑪												X[e]	X[e]

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 Changing the transmission oil
7 Replace all spark plugs
8 Replace air cleaner insert
9 Replacing alternator belt
10 Adjusting engine synchronization
11 Change brake fluid in entire system

a annually or every 6000 mls (10000 km) (whichever comes first)

b annually or every 12000 mls (20000 km) (whichever comes first)

c for the first time after one year, then every two years or 24000 mls (40000 km) (whichever comes first)

d every six years or every 24000 mls (40000 km) (whichever comes first)

e 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.

– Perform a vehicle test with the BMW Motorrad diagnosis system
– Visual inspection of hydraulic clutch system
– Checking steering-head bearing
– 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
– Check cables for ease of movement, chafing and kinks, and play
– Check the tire tread depth and tire pressure
– Checking side stand for ease of movement
– 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_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Engine oil change with filter	☐	☐
Oil change in rear bevel gears	☐	☐
Checking valve clearance	☐	☐
Changing gear oil	☐	☐
Replacing all spark plugs	☐	☐
Replacing air cleaner element	☐	☐
Replacing alternator drive belt	☐	☐
Adjusting engine synchronization	☐	☐
Changing front brake fluid	☐	☐
Changing brake fluid, rear	☐	☐

Information

BMW Service
performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Engine oil change with filter	☐	☐
Oil change in rear bevel gears	☐	☐
Checking valve clearance	☐	☐
Changing gear oil	☐	☐
Replacing all spark plugs	☐	☐
Replacing air cleaner element	☐	☐
Replacing alternator drive belt	☐	☐
Adjusting engine synchronization	☐	☐
Changing front brake fluid	☐	☐
Changing brake fluid, rear	☐	☐

Information

BMW Service
performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Engine oil change with filter	☐	☐
Oil change in rear bevel gears	☐	☐
Checking valve clearance	☐	☐
Changing gear oil	☐	☐
Replacing all spark plugs	☐	☐
Replacing air cleaner element	☐	☐
Replacing alternator drive belt	☐	☐
Adjusting engine synchronization	☐	☐
Changing front brake fluid	☐	☐
Changing brake fluid, rear	☐	☐

Information

BMW Service
performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

_____
Stamp, signature

Work performed

BMW Service	Yes	No
Engine oil change with filter	☐	☐
Oil change in rear bevel gears	☐	☐
Checking valve clearance	☐	☐
Changing gear oil	☐	☐
Replacing all spark plugs	☐	☐
Replacing air cleaner element	☐	☐
Replacing alternator drive belt	☐	☐
Adjusting engine synchronization	☐	☐
Changing front brake fluid	☐	☐
Changing brake fluid, rear	☐	☐

Information

BMW Service
performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Engine oil change with filter	☐	☐
Oil change in rear bevel gears	☐	☐
Checking valve clearance	☐	☐
Changing gear oil	☐	☐
Replacing all spark plugs	☐	☐
Replacing air cleaner element	☐	☐
Replacing alternator drive belt	☐	☐
Adjusting engine synchronization	☐	☐
Changing front brake fluid	☐	☐
Changing brake fluid, rear	☐	☐

Information

BMW Service
performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

_____
Stamp, signature

Work performed

BMW Service	Yes	No
Engine oil change with filter	☐	☐
Oil change in rear bevel gears	☐	☐
Checking valve clearance	☐	☐
Changing gear oil	☐	☐
Replacing all spark plugs	☐	☐
Replacing air cleaner element	☐	☐
Replacing alternator drive belt	☐	☐
Adjusting engine synchronization	☐	☐
Changing front brake fluid	☐	☐
Changing brake fluid, rear	☐	☐

Information

BMW Service
performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Engine oil change with filter	☐	☐
Oil change in rear bevel gears	☐	☐
Checking valve clearance	☐	☐
Changing gear oil	☐	☐
Replacing all spark plugs	☐	☐
Replacing air cleaner element	☐	☐
Replacing alternator drive belt	☐	☐
Adjusting engine synchronization	☐	☐
Changing front brake fluid	☐	☐
Changing brake fluid, rear	☐	☐

Information

BMW Service
performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

_____
Stamp, signature

Work performed

BMW Service	Yes	No
Engine oil change with filter	☐	☐
Oil change in rear bevel gears	☐	☐
Checking valve clearance	☐	☐
Changing gear oil	☐	☐
Replacing all spark plugs	☐	☐
Replacing air cleaner element	☐	☐
Replacing alternator drive belt	☐	☐
Adjusting engine synchronization	☐	☐
Changing front brake fluid	☐	☐
Changing brake fluid, rear	☐	☐

Information

BMW Service
performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Engine oil change with filter	☐	☐
Oil change in rear bevel gears	☐	☐
Checking valve clearance	☐	☐
Changing gear oil	☐	☐
Replacing all spark plugs	☐	☐
Replacing air cleaner element	☐	☐
Replacing alternator drive belt	☐	☐
Adjusting engine synchronization	☐	☐
Changing front brake fluid	☐	☐
Changing brake fluid, rear	☐	☐

Information

BMW Service
performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Engine oil change with filter	☐	☐
Oil change in rear bevel gears	☐	☐
Checking valve clearance	☐	☐
Changing gear oil	☐	☐
Replacing all spark plugs	☐	☐
Replacing air cleaner element	☐	☐
Replacing alternator drive belt	☐	☐
Adjusting engine synchronization	☐	☐
Changing front brake fluid	☐	☐
Changing brake fluid, rear	☐	☐

Information

BMW Service
performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Engine oil change with filter	☐	☐
Oil change in rear bevel gears	☐	☐
Checking valve clearance	☐	☐
Changing gear oil	☐	☐
Replacing all spark plugs	☐	☐
Replacing air cleaner element	☐	☐
Replacing alternator drive belt	☐	☐
Adjusting engine synchronization	☐	☐
Changing front brake fluid	☐	☐
Changing brake fluid, rear	☐	☐

Information

BMW Service
performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

Stamp, signature

Work performed

BMW Service	Yes ☐	No ☐
Engine oil change with filter	☐	☐
Oil change in rear bevel gears	☐	☐
Checking valve clearance	☐	☐
Changing gear oil	☐	☐
Replacing all spark plugs	☐	☐
Replacing air cleaner element	☐	☐
Replacing alternator drive belt	☐	☐
Adjusting engine synchronization	☐	☐
Changing front brake fluid	☐	☐
Changing brake fluid, rear	☐	☐

Information

Service confirmations

The table serves to provide evidence of maintenance and repair work, as well as installed optional accessories and special campaigns performed.

Work performed	at km	Date

Work performed	at km	Date

Appendix

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. ◀

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 will be entertained as a result of such discrepancies.
Dimensions, weights, fuel consumption and performance data are quoted to the customary tolerances.
The right to modify designs, equipment and accessories is reserved.
Errors and omissions excepted.

Original Rider's Manual, printed in Germany.

Important data for refueling:

Fuel	
Recommended fuel quality	Normal unleaded 87 AKI (91 ROZ/RON) 87 AKI
Alternative fuel quality	Midgrade unleaded fuel (slight reduction in performance and potentially higher consumption) - premium grade unleaded fuel (max. 10 % ethanol, E10) 89...91 AKI (95...98 ROZ/RON) 90...93 AKI
Fuel level	Approx. 4.5 gal (Approx. 17.0 l)
Fuel reserve	Approx. 3.7 quarts (Approx. 3.5 l)
Tire inflation pressures	
Tire pressure, front	36.3 psi (2.5 bar), One-up and use with passenger, on cold tire
Tire pressure, rear	39.2 psi (2.7 bar), One-up, with cold tires 42.1 psi (2.9 bar), Two-up riding, with cold tires

You can find further information on all aspects of your vehicle at:
bmw-motorrad.com

BMW recommends ADVANTEC ORIGINAL BMW ENGINE OIL

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