

BMW Motorrad

Rider's Manual

R nineT Scrambler

Vehicle data/dealership details

Vehicle data

Model

Vehicle Identification Number

Colour code

Initial operation

Number on fork bridge

Dealership details

Person to contact in Service department

Ms/Mr

Phone number

Dealership address/phone number (company stamp)

Welcome to BMW

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

About this Rider's Manual

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

Suggestions and criticism

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

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

BMW Motorrad.

01 40 8 403 311



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General instructions

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Quick & easy reference

An important aspect of this Rider's Manual is that it can be used for quick and easy reference. Go straight to the "General views" chapter if you would like an initial overview of your motorcycle.

Abbreviations and symbols

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

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

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

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

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

◀ Indicates the end of an item of information.

• Instruction.

» Result of an activity.

⇒ Reference to a page with more detailed information.

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

Tightening torque.

Technical data.

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

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

ABS Anti-lock brake system.

ASC Automatic Stability Control.

DWA Anti-theft alarm (Diebstahlwarnanlage).

EWS Electronic immobiliser.

Equipment

When you purchased your BMW motorcycle, you chose a model with individual equipment. This Rider's Manual describes the optional extras (OE) offered by BMW and selected optional accessories (OA). This explains why the manual may also contain equipment specifications 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 contains equipment that has not been described, its description can be found in a separate manual.

Technical data

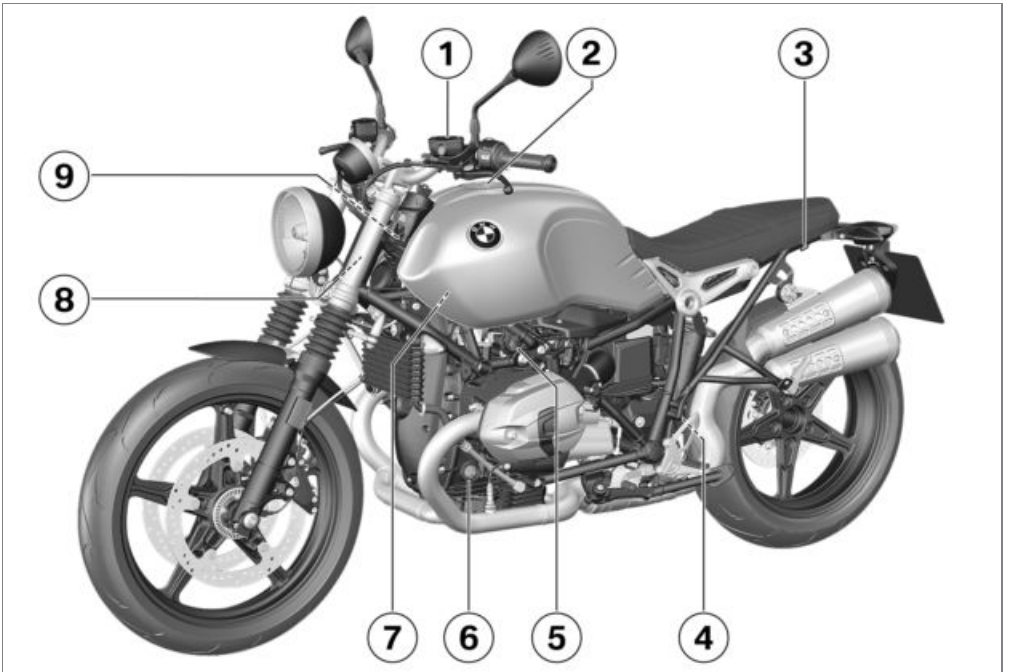
All dimensions, weights and power outputs stated in the Rider's Manual are quoted to the standards and comply with the tolerance requirements of the Deutsches Institut für Normung e. V. (DIN). Versions for individual countries may differ.

Actuality

The high safety and quality level of BMW motorcycles is ensured by continuous development work on design, equipment and accessories. Because of this, your motorcycle may differ from the information supplied in the Rider's Manual. Nor can BMW Motorrad entirely rule out errors and omissions. We hope you will appreciate that no claims can be entertained on the basis of the data, illustrations or descriptions in this manual.

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General view, left side

1 Clutch system
Checking clutch function (➠ 91).

2 Fuel filler neck
Refuelling (➠ 72).

3 Eye
Load correctly (➠ 64).
Securing luggage to motorcycle (➠ 113).

4 Adjusting screw
Adjusting the damping characteristic for rear wheel (➠ 56).

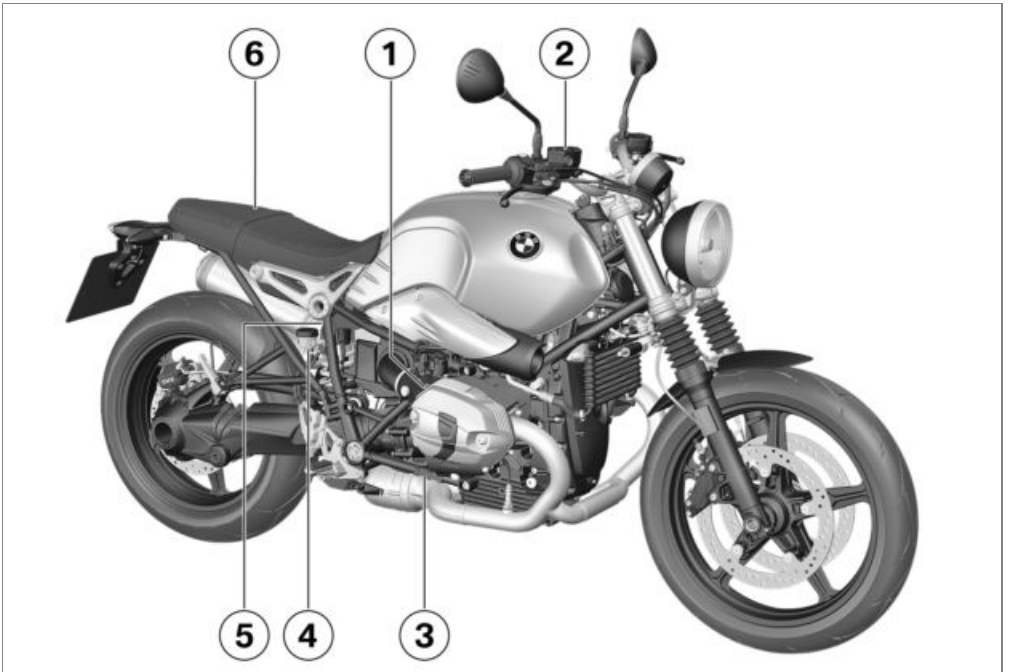
5 Power socket (➠ 112)

6 Engine oil level indicator
Checking engine oil level (➠ 85).

7 Connector for optional accessories (under the tank)

8 Type plate (on the left of the steering-head bearing)

9 Connector for rotational-speed sensor (optional accessories)


6
1
2
5
4
3

General view, right side

1 Oil filler neck
Topping up the engine oil (➠ 86).

2 Brake-fluid reservoir, front
Checking brake-fluid level, front brakes (➠ 89).

3 Vehicle identification number

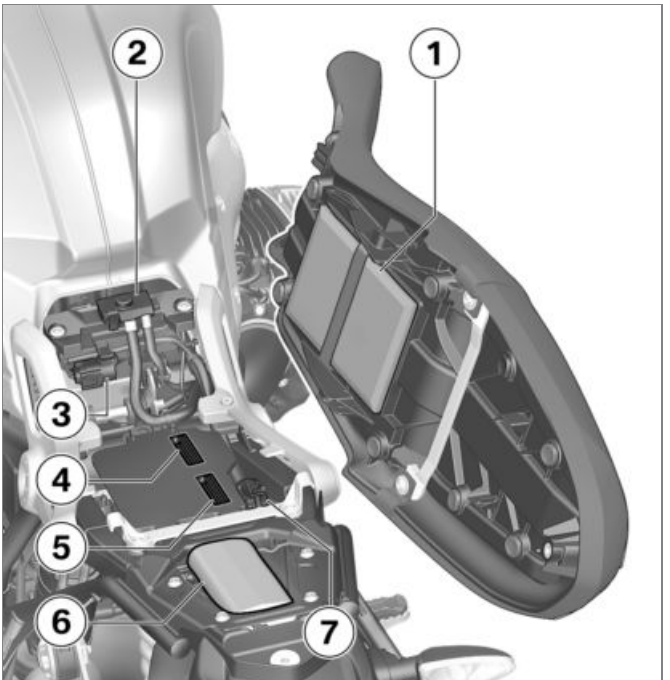
4 Brake-fluid reservoir, rear
Checking the brake-fluid level, rear brakes (➠ 90).

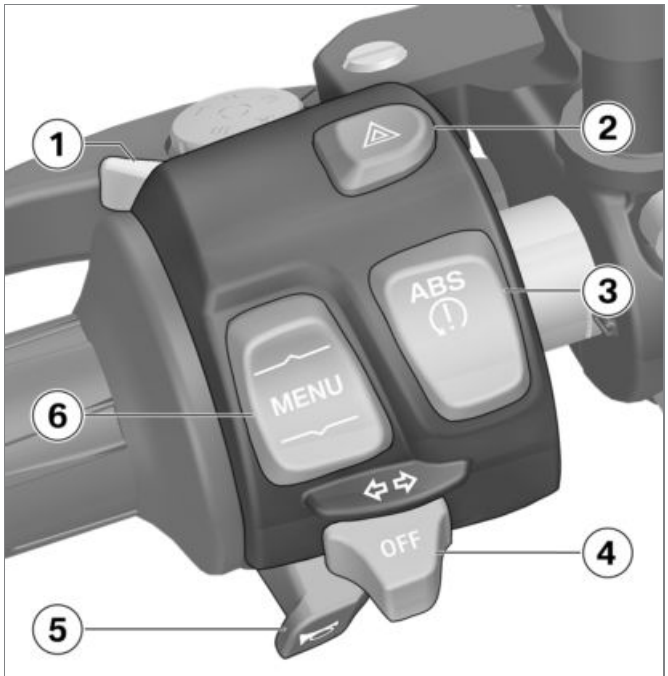
5 Adjusting ring for spring preload
Adjusting the spring preload for the rear wheel (➠ 55).

6 Seat
Remove seat (➠ 49).

Underneath the seat

1 Rider's Manual
Quick & easy reference
(➠ 6)
2 Positive battery connection point (➠ 104)
3 Fuse box
Replace fuses (➠ 107).
4 Tyre pressure table
Checking tyre pressure (➠ 91).
5 Payload table
6 Toolkit (➠ 82)
7 Diagnostic connector
Disengaging diagnostic connector (➠ 109).





Multifunction switch, left

1 High-beam headlight and headlight flasher (➠ 37)

2 Hazard warning lights system (➠ 38)

3 – with Automatic Stability Control (ASC)[OE]
ABS Switching off (➠ 46).
– with Automatic Stability Control (ASC)[OE]
ASC Switching off (➠ 47).

4 Turn indicators (➠ 38)

5 Horn

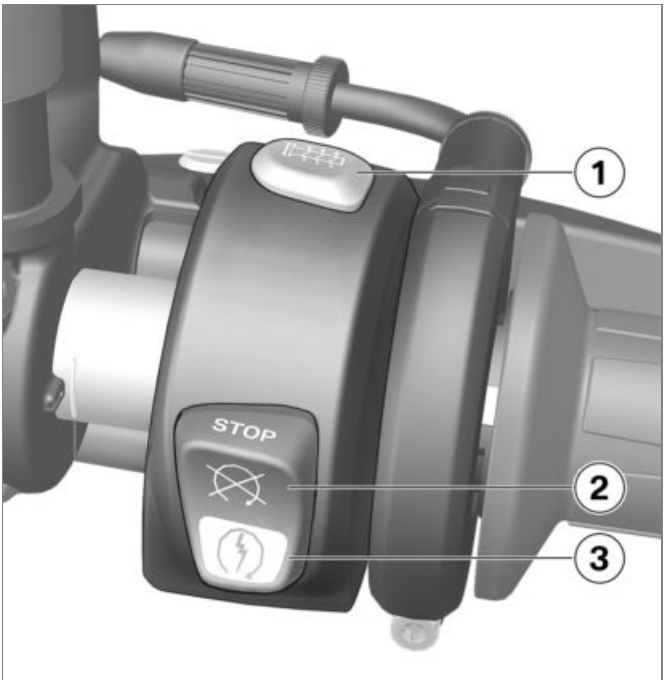
6 MENU rocker switch
Multifunction display (➠ 21)
Selecting readings (➠ 39)
Resetting trip distance recorder (➠ 41)
Call up SETUP (➠ 43)

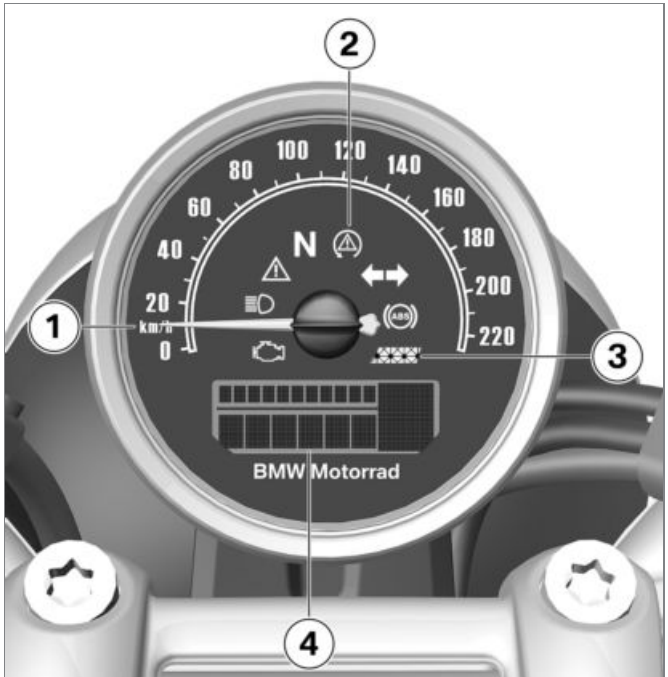
Multifunction switch, right

1 – with heated grips OE
Operating the heated handlebar grips (➠ 48).

2 Emergency off switch (kill switch) (➠ 36)

3 Starter button
Start engine (➠ 66).





Instrument panel

1 Speedometer

2 Indicator and warning lights (➠ 20)

3 Photosensor for the brightness control in the multifunction display
– with alarm system (DWA)[OE]
DWA light-emitting diode (➠ 42)

4 Multifunction display (➠ 21)
Select display (➠ 39).

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Warning and telltale lights

1 Emissions warning light (➠ 27)

2 High-beam headlight telltale light
Operating the high beam and headlight flasher (➠ 37).

3 General warning light
Display in conjunction with warning symbols on the multifunction display (➠ 22)

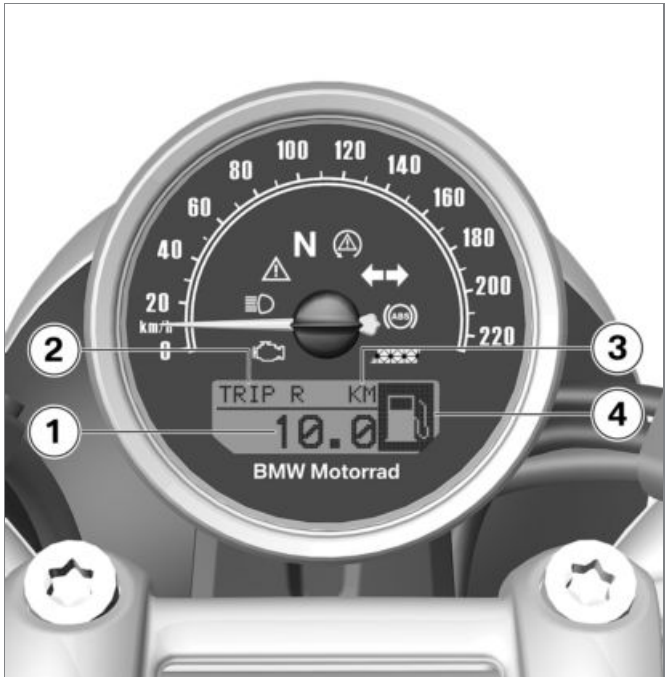
4 Telltale light for neutral

5 - with Automatic Stability Control (ASC)[OE]
ASC telltale and warning light (➠ 29)

6 Turn signal indicator light
Operating the turn indicators (➠ 38).

7 ABS telltale and warning light





Multifunction display

1 Value
2 On-board computer
Select display (➠ 39).
3 Unit
4 Warning symbol
Display in conjunction with a general warning light (➠ 22)

Warnings

Mode of presentation

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



Warnings for which there are no separate warning lights are represented by a warning symbol **1** in the multifunction display and the general warning light **2**. Depending on the urgency of the warning, the general warning light lights up or flashes.

Warnings, overview

Indicator and warning lights	Display text	Meaning
 General warning light lights up.	 Key symbol appears on the display.	Electronic immobiliser active (➠ 26)
 General warning light flashes.	 Temperature symbol appears on the display.	Coolant temperature too high (➠ 26)
 General warning light lights up.	 Engine symbol appears on the display.	Engine in emergency-operation mode (➠ 26)
 General warning light flashes.	 Engine symbol appears on the display.	Engine warning (➠ 27)
 The malfunction indicator lamp lights up.		Emissions warning (➠ 27)
 General warning light lights up.	 Battery symbol appears on the display.	Vehicle voltage is too low (➠ 27)

Indicator and warning lights	Display text	Meaning
 General warning light lights up.	 Lamp symbol appears on the display.	Bulb faulty (➠ 28)
 ABS telltale and warning light flashes.		ABS self-diagnosis not completed (➠ 28)
 ABS telltale and warning light shows.		ABS switched off (➠ 29)
 ABS telltale and warning light shows.		ABS fault (➠ 29)
 ASC telltale and warning light quick-flashes.		ASC intervention (➠ 29)
 ASC telltale and warning light slow-flashes.		ASC self-diagnosis not completed (➠ 29)
 ASC telltale and warning light shows.		ASC switched off (➠ 30)

Indicator and warning lights	Display text	Meaning
 ASC telltale and warning light shows.		ASC fault (➠ 30)
	 Symbol for the DWA battery is displayed.	Anti-theft alarm battery flat (➠ 30)
 General warning light lights up.	 The symbol for the fuel reserve volume and the odometer TRIP R are displayed.	Fuel down to reserve (➠ 31)
 General warning light lights up.	 Symbol for service is displayed.	Service appointment has passed (➠ 31)

Electronic immobiliser active


General warning light lights up.


Key symbol appears on the display.

Possible cause:

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

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

Coolant temperature too high


General warning light flashes.


Temperature symbol appears on the display.

ATTENTION

Riding with overheated engine

Engine damage

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

Possible cause:

The engine-oil temperature is too high.

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

Engine in emergency-operation mode


General warning light lights up.


Engine symbol appears on the display.

WARNING

Unusual ride characteristics when engine running in emergency-operation mode

Risk of accident

- Adapt your style of riding accordingly: avoid accelerating sharply and overtaking.◀

Possible cause:

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

- You can continue to ride, but bear in mind that the usual en-

gine performance might not be available.
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Engine warning


General warning light flashes.


Engine symbol appears on the display.

WARNING

Engine damage when running in emergency-operation mode

Risk of accident
- Adapt your style of riding accordingly: ride slowly, avoid sharp accelerating and overtaking.
- If possible, have the vehicle brought in and the fault rectified by a specialist workshop, preferably an authorised BMW Motorrad dealer.◀

Possible cause:

The engine control unit has diagnosed a fault which may cause severe secondary faults. The engine is in emergency-operation mode.
- Avoid high load and rpm ranges if possible.
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad dealer.

» It is possible to continue to ride but not recommended.

Emissions warning


The malfunction indicator lamp lights up.

Possible cause:

The engine control unit has diagnosed a fault which affects the pollutant emissions.
- Have the fault rectified by a specialist workshop, preferably an authorised BMW Motorrad dealer.

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

Vehicle voltage is too low


General warning light lights up.


Battery symbol appears on the display.

WARNING

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

Risk of accident

- Do not continue your journey.◀

Possible cause:

The battery is faulty.

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

Bulb faulty


General warning light lights up.


Lamp symbol appears on the display.

WARNING

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

Safety risk

- Replace defective bulbs as soon as possible; always carry a complete set of spare bulbs if possible.◀

Possible cause:

One or more bulbs defective.

- Visually inspect to ascertain which bulb is defective.
- Replacing bulbs for low-beam and high-beam headlight (➠ 100).
- Replacing bulb for parking light (➠ 101).
- Replacing bulbs for front and rear turn indicators (➠ 102).
- Replacing LED rear light (➠ 104).

ABS self-diagnosis not completed


ABS telltale and warning light flashes.

Possible cause:

 ABS self-diagnosis not completed
The ABS function is not available, because self-diagnosis did not complete. (The motorcycle has to reach a defined minimum speed for the wheel speed sensors to be checked: 5 km/h)

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

ABS switched off

– with Automatic Stability Control (ASC)[OE]


ABS telltale and warning light shows.

Possible cause:

The rider has switched off the ABS.

– with Automatic Stability Control (ASC)[OE]

• ABS Switching on (➠ 46).

ABS fault


ABS telltale and warning light shows.

Possible cause:

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

• You can continue to ride the vehicle, but make due provision for the fact that the ABS function is not available. Please refer to the more detailed information on situations that may lead to an ABS fault (➠ 77).

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

ASC intervention

– with Automatic Stability Control (ASC)[OE]


ASC telltale and warning light quick-flashes.

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

ASC self-diagnosis not completed

– with Automatic Stability Control (ASC)[OE]


ASC telltale and warning light slow-flashes.

Possible cause:

– with Automatic Stability Control (ASC)[OE]

 ASC self-diagnosis not completed
The motorcycle has to reach the following speed with the engine running for the wheel-speed sensors to be checked:
min 5 km/h

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

ASC switched off

– with Automatic Stability Control (ASC)[OE]


ASC telltale and warning light shows.

Possible cause:

The rider has switched off the ASC.

- ASC Switching on (➠ 47).

ASC fault

– with Automatic Stability Control (ASC)[OE]


ASC telltale and warning light shows.

Possible cause:

– with Automatic Stability Control (ASC)[OE]

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

- You can continue to ride. Bear in mind that the ASC function is not available. Please refer to the more detailed information on situations that may lead to an ASC fault (➠ 78).
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Anti-theft alarm battery flat

– with alarm system (DWA)[OE]


Symbol for the DWA battery is displayed.

NOTICE

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

Possible cause:

The integral battery in the anti-theft alarm (DWA) has lost its entire original capacity. There is no guarantee that the DWA will be operational if the vehicle battery is disconnected.

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

Fuel reserve

The fuel quantity in the fuel tank when the fuel reserve indicator light is switched on is dependent on the driving dynamics. The more the fuel moves inside the fuel tank (due to regularly changing angles of heel, frequent braking and acceleration), the more difficult it becomes to determine the fuel reserve volume. For this reason, the fuel reserve volume cannot be displayed exactly.


After the fuel reserve indicator light is switched on, the odometer for the fuel reserve volume TRIP R is automatically displayed.

The distance that can still be travelled using the fuel reserve volume depends on the style of riding (consumption) and the fuel quantity remaining at the time the light came on.
After a refuelling stop, the distance counter for reserve fuel is reset if the amount of fuel in the tank is greater than the reserve quantity.

Fuel down to reserve

General warning light lights up.

The symbol for the fuel reserve volume and the odometer TRIP R are displayed.

WARNING

Irregular engine operation or engine shutdown due to lack of fuel

Risk of accident, damage to catalytic converter

- Do not run the fuel tank dry.◀

Possible cause:

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

Fuel reserve	
approx. 3.5 l	

- Refuelling (➠ 72).

Service appointment has passed

General warning light lights up.

Symbol for service is displayed.

Service-due indicator



If the next service is due within one month, the symbol for service **3** and the service date **2** are displayed. SERV T **1** is briefly displayed after the Pre-Ride-Check.



If the service is due within the next 1000 km, the symbol for service **3** and the remaining distance **2** are displayed, counting down in steps of 100 km. SERV D **1** is briefly displayed after the Pre-Ride-Check.

NOTICE

If the service display appears more than a month before the service date, the date saved in the instrument cluster must be adjusted. This situation can occur if the battery was disconnected from the vehicle.◀

Operation

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Ignition switch/steering lock

Keys

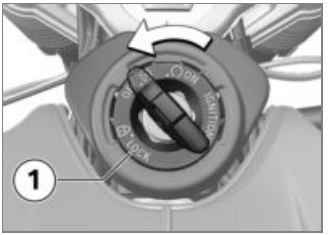
You receive 2 ignition keys and a special key for removing the seat (➠ 49).

If a key is lost or mislaid, consult the information on the electronic immobiliser (EWS) (➠ 35).

Ignition switch/steering lock and the fuel filler cap lock are operated with the same key.

Lock the handlebars

- Turn the handlebars all the way to left.



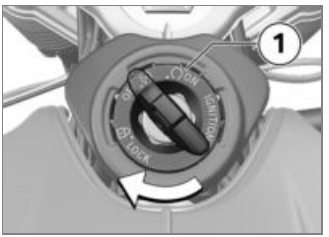
- Turn the ignition key to position **1**, while moving the handlebars slightly.

» Ignition, lights and all function circuits are switched off.

» Handlebars are locked.

» Ignition key can be removed.

Switching on ignition



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

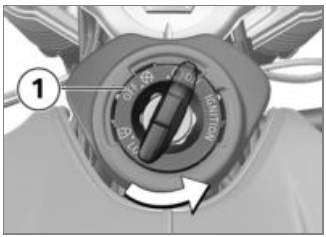
» Side lights and all function circuits are switched on.

» Engine can be started.

» Pre-Ride-Check is performed. (➠ 67)

» ABS self-diagnosis is performed (➠ 68)

Switching off ignition



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

» Lights switched off.
» Handlebars not locked.
» Ignition key can be removed.
» Electrically powered accessories remain operational for a limited period of time.
» The battery can be recharged via the socket.

Electronic immobiliser (EWS)

The electronic design of the motorcycle allows it to access data stored in the ignition key by means of a ring antenna located in the ignition switch/steering lock. The engine control unit will not permit the engine to be started unless the key is identified as “authorised”.

NOTICE

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

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

Emergency off switch (kill switch)



1 Emergency off switch (kill switch)

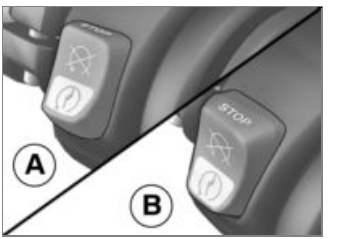
⚠ WARNING

Operation of the kill switch while riding

Risk of fall due to rear wheel locking

- Do not operate the kill switch when riding.◀

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



A Engine switched off.
B Normal operating position (run)

NOTICE

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

Lights

Side light and low-beam headlight

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

NOTICE

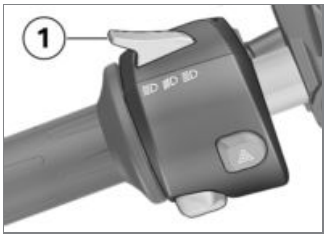
The side lights place a strain on the battery. Do not switch the ignition on for longer than absolutely necessary.◀

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

NOTICE

When the engine is not running you can switch on the lights by switching on the ignition and either switching on the high-beam headlight or operating the headlight flasher.◀

High-beam headlight and headlight flasher



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

Parking lights

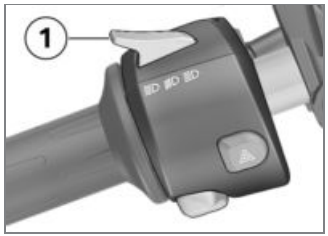
- Switching off ignition (➠ 35).



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

Headlight courtesy delay feature

- Switch off the ignition.



- Immediately after switching off the ignition, push button **1** to the back and hold it in this position until the headlight courtesy delay feature comes on.

» The vehicle lighting lights for one minute and is automatically switched back off.

– This can be used after parking the vehicle, for example, to light the way to the house door.

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 the hazard warning flashers.

» Ignition can be switched off.

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

Turn indicators

Operating the turn indicators

- Switching on ignition (➠ 34).



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

- Press button **1** to switch off the flashing turn indicators.

Turn indicator cancellation
The turn indicators are cancelled automatically after the defined riding time and distance. The defined time and distance can be set by an authorised BMW Motorrad dealer.



Reading

Select display

Requirement

The vehicle is at a standstill.

- Switching on ignition (➠ 34).

» The on-board computer readings appear on the display.

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

Possible displays:

– Total distance travelled: ODO
– Trip distance 1: TRIP 1
– Trip distance 2: TRIP 2
– Automatic trip distance: TRIP A, is reset automatically if at least 5 hours have passed since the ignition was switched off and the date has changed.
– Distance covered since reaching the fuel reserve volume: TRIP R, can only be selected for the fuel reserve.

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

Resetting trip distance recorder

- Switching on ignition (➠ 34).



- Briefly press **1** until the trip distance recorder **2** you would like to reset is displayed.
- Press and hold **1** until the trip distance recorder **2** is reset.

Anti-theft alarm (DWA)

– with alarm system (DWA) OE

DWA Activating

- Switching on ignition (➠ 34).
- DWA adjusting (➠ 43).
- Switch off the ignition.

» If the DWA is activated, the DWA is automatically activated after having switched off the ignition.

» Activation takes approximately 30 seconds to complete.

– Turn indicators flash twice.

– Confirmation tone sounds twice (if programmed).

» Anti-theft alarm (DWA) is active.

Alarm signal

A DWA alarm can be triggered by:

– motion sensor

– an attempt to use an unauthorised vehicle key to switch on the ignition

– disconnection of the DWA anti-theft alarm from the motorcycle's battery (DWA internal battery in the anti-theft alarm provides power - alarm tone only, the turn indicators do not flash).

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

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

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

Light signals issued by the DWA LED:

– Flashes 1x: Motion sensor 1

– Flashes 2x: Motion sensor 2

– Flashes 3x: Ignition switched on with unauthorised vehicle key

– Flashes 4x: Disconnection of the DWA anti-theft alarm from the motorcycle's battery

– Flashes 5x: Motion sensor 3

DWA deactivating

- Switching on ignition (➠ 34).

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

DWA adjusting

- Switching on ignition (➠ 34).



- Repeatedly short-press button **1** until SETUP ENTER appears on the display.
- Press and hold **1** to open SETUP.

» SET DWA is displayed.



- Press button **2** briefly in order to change the set value.

The following settings are available:

– DWA ON: DWA is activated or will be activated automatically after the ignition is switched off.
– DWA OFF: DWA is deactivated.

- Press and hold **1** to exit SET DWA.

» SETUP ENTER is displayed.

Clock

Setting the clock

⚠ WARNING

Adjusting the clock while riding

Risk of accident

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



- Repeatedly short-press button **1** until SETUP ENTER appears on the display.

- Press and hold **1** to open SETUP.
- Repeatedly short-press button **1** until SET CLOCK appears on the display.



- Press and hold **2** until the hours **3** flash.
- Briefly press **1** to increase the hours value.
- Briefly press **2** to reduce the hours value.

» The hours have been adjusted.

- Press and hold **2** until the minutes **4** flash.
- Briefly press **1** to increase the minutes value.
- Briefly press **2** to reduce the minutes value.

» The minutes have been adjusted.

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

» The clock has been adjusted.

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

» SETUP ENTER is displayed.

Date

Setting the date

- Switching on ignition (➠ 34).



- Repeatedly short-press button **1** until SETUP ENTER appears on the display.
- Press and hold **1** to open SETUP.
- Repeatedly short-press button **1** until SET DATE appears on the display.



- Press and hold **2** until the day **3** flashes.
- Briefly press **1** to increase the day value.
- Briefly press **2** to reduce the day value.

» The day value has been adjusted.

- Press and hold **2** until the month **4** flashes.
- Briefly press **1** to increase the month value.
- Briefly press **2** to reduce the month value.

» The month value has been adjusted.

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



- Briefly press **1** to increase the year value **5**.
- Briefly press **2** to reduce the year value **5**.
- Press and hold **2** until the year no longer flashes.

» The year has been adjusted.

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

» The date has been adjusted.

» SETUP ENTER is displayed.

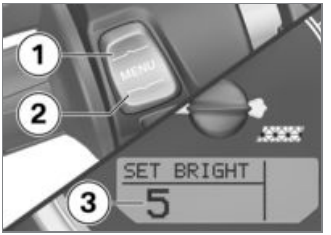
Adjusting brightness

Adjusting display brightness

- Switching on ignition (➠ 34).



- Repeatedly short-press button **1** until SETUP ENTER appears on the display.
- Press and hold **1** to open SETUP.
- Repeatedly short-press button **1** until SET BRIGHT appears on the display.



- Briefly press **1** until the desired display brightness value **3** has been adjusted.

» A display brightness value between 1 and 5 (dark to bright) has been adjusted.

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

» SETUP ENTER is displayed.

Anti-lock brake system (ABS)

– with Automatic Stability Control (ASC)[OE]

ABS Switching off

- Switching on ignition (➠ 34).

NOTICE

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



- Press and hold the button **1** until initially the ASC indicator and warning light **2** and subsequently the ABS indicator and warning light **3** change status.

» The ASC setting remains unchanged.

ABS telltale and warning light shows.

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

ABS telltale and warning light remains on.

» ABS is switched off.

ABS Switching on



- Press and hold the button **1** until initially the ASC indicator and warning light **2** and subsequently the ABS indicator and warning light **3** change status.

» The ASC setting remains unchanged.

ABS telltale and warning light goes out; if self-diagnosis has not completed it starts flashing.

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

An ABS fault has occurred if the ABS telltale and warning light shows when the motorcycle accelerates to a speed in excess of the minimum stated below after the ignition was switched off and then on again.

min 10 km/h

Automatic Stability Control (ASC)

– with Automatic Stability Control (ASC)[OE]

ASC Switching off

- Switching on ignition (➠ 34).

NOTICE

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



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

» The ABS setting remains unchanged.

ASC telltale and warning light starts to show.

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

ASC telltale and warning light remains on.

» ASC is switched off.

ASC Switching on



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

ASC telltale and warning light goes out; if self-diagnosis has not completed it starts flashing.

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

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

» ASC is switched on.

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

An ASC fault has occurred if the ASC telltale and warning light shows when the motorcycle accelerates to a speed in excess of the minimum stated below after the ignition was switched off and then on again.

min 10 km/h

Heated handlebar grips

– with heated grips OE

Operating the heated handlebar grips

NOTICE

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

NOTICE

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

- Start engine (➠ 66).



- Repeatedly press button **1** until desired heating stage **2** appears on the display.

The handlebar grips have two-stage heating.

100% heating power

approx. 50% heating power

» Stage 2 is for heating the grips quickly: it is advisable to switch back to stage 1 as soon as the grips are warm.

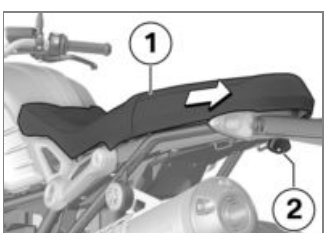
» The selected heating stage will be saved if you allow a certain

length of time to pass without making further changes.
- To switch off the heated grips, repeatedly press button **1** until the heated grip symbol **2** is no longer shown on the display.

Seat

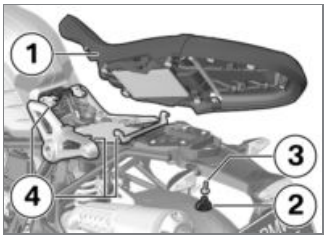
Remove seat

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



- Remove the screw using the special key **2** for the seat.
- Pull the seat **1** back and remove it.

Installing the seat



- Position the seat **1** centrally and push it forwards into the tabs **4**.
- Install the screw **3** using the special key **2** for the seat.

Adjustment

Mirrors 52
Headlight 52
Clutch 53
Brakes 54
Spring preload 55
Damping 56
Adjustable footrest system 57

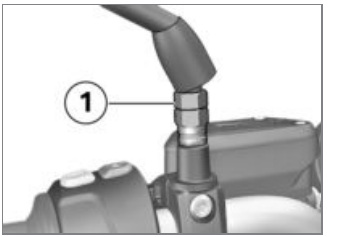
Mirrors

Adjusting mirrors



- Turn the mirror to the desired position.

Adjusting mirror arm



- Push the protective cap up over the threaded fastener on the mirror arm.
- Use the tool from the on-board toolkit to slacken nut **1**.
- Turn the mirror arm to the appropriate position.
- Tighten nut **1**, while holding the mirror arm to ensure that it does not move out of position.

Mirror (locknut) to adapter
22 Nm (Left-hand thread)

- Push the protective cap over the threaded fastener.

Headlight

Adjusting headlight for driving on left/driving on right

This motorcycle has a symmetric-beam low-beam headlight. If the motorcycle is ridden in a country where the opposite rule of the road applies, its symmetric low-beam headlight means that no measures are necessary to prevent the headlight beam from dazzling oncoming traffic.

Headlight beam throw and spring preload

Headlight beam throw is generally kept constant when spring preload is adjusted to suit load. However, a spring preload adjustment might not suffice if

the motorcycle is very heavily loaded. Under these circumstances, headlight beam throw has to be adjusted to suit the weight carried by the motorcycle.

NOTICE

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

Clutch

Adjusting the clutch lever

WARNING

Relocated clutch-fluid reservoir

Air in the clutch system

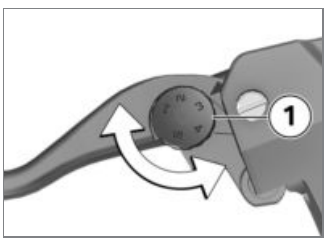
- Do not turn the handlebars or the handlebar fitting on the handlebar.◀

WARNING

Adjusting the clutch lever while riding

Risk of accident

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



- Applying light pressure from behind, turn adjusting screw **1** to the desired position.

NOTICE

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

» Adjustment options:

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

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

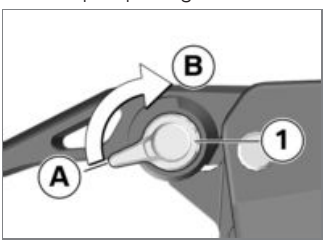
– with option 719, Classic milled part package OE

or

– with option 719, Storm milled part package OE

or

– with option 719, Club Sport milled part package OE



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

» Adjustment options:

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

– In 5 steps in the direction of position **B** to increase the distance between the handlebar grip and the clutch lever.◁

Brakes

Adjusting the front brake lever

WARNING

Relocated brake fluid tank

Air in the brake system

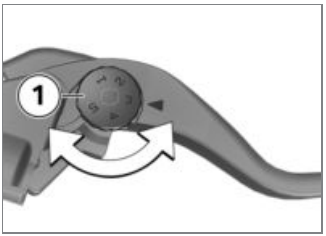
- Do not turn the handlebars or the handlebar fitting on the handlebar.◀

WARNING

Adjusting the brake lever while riding

Risk of accident

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



- Applying light pressure from behind, turn adjusting screw **1** to the desired position.

NOTICE

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

» Adjustment options:

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

– Position 5: largest distance between handlebar grip and brake lever

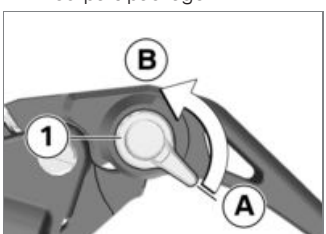
– with option 719, Classic milled part package OE

or

– with option 719, Storm milled part package OE

or

– with option 719, Club Sport milled part package OE



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

» Adjustment options:

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

– In 5 steps in the direction of position **B** to increase the distance between the handlebar grip and the parking brake lever.◁

Spring preload

Adjustment

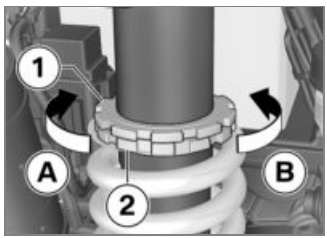
It is essential to set spring preload of the rear suspension to suit the load carried by the motorcycle. Increase spring preload when the vehicle is heavily loaded and reduce spring preload accordingly when the vehicle is lightly loaded.

Adjusting the spring preload for the rear wheel

Requirement

Setting the spring preload requires 2 hook wrenches that are not included in the toolkit, but are nevertheless included in the delivery specification of the vehicle.

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



- To loosen the lock nut, turn the adjusting ring **1** using the hook wrench in direction **B**, while tightening the adjusting ring **2** using the second hook wrench.
- To increase the spring preload, turn the adjusting ring **2** using the hook wrench in direction **A**.
- To decrease the spring preload, turn the adjuster ring **1** using the hook wrench in direction **B**.

- To tighten the lock nut, tighten the adjuster ring **1** using the hook wrench in direction **A**, while fixing the adjuster ring **2** using the second hook wrench.
- Adjusting the damping action to the modified spring preload.
- Adjusting the damping characteristic for rear wheel (➠ 56).

Damping

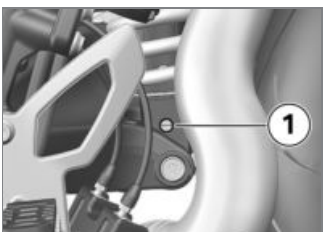
Adjustment

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

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

Adjusting the damping characteristic for rear wheel

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



⚠ CAUTION

Adjusting the spring-strut damping when the silencer is hot

Risk of burn injury

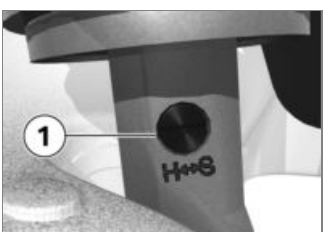
- Allow the silencer to cool.◀

⚠ CAUTION

Working with hot components

Risk of burn injury

- Wear protective gloves.◀
- Adjust the damping characteristic, using the tool from the on-board toolkit to turn adjusting screw **1**.



- If you want to increase damping, turn adjusting screw **1** clockwise.

- If you want to reduce damping, turn adjusting screw **1** counterclockwise.

Recommended suspension setting for one-up riding
11 mm (Spring preload)
Turn the adjusting screw clockwise as far as it will go, then back it off 1.5 turns (Damping)
– with lowered suspension OE
11 mm (Spring preload)
Turn the adjusting screw clockwise as far as it will go, then turn it back 1.75 turns (Damping)◁

Recommended suspension setting for two-up riding
21 mm (Spring preload)

Recommended suspension setting for two-up riding
Turn the adjusting screw clockwise as far as it will go, then turn it back 0.75 turns (Damping)
– with lowered suspension OE
21 mm (Spring preload)
Turn the adjusting screw clockwise as far as it will go, then turn it back 0.5 turns (Damping)◁

Adjustable footrest system

– with option 719, Classic milled part package OE

or

– with option 719, Storm milled part package OE

or

– with option 719, Club Sport milled part package OE

Adjusting the rotor

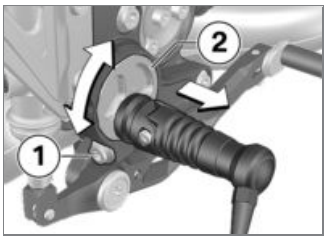
⚠ WARNING

Steep bank angles can lead to hard components striking the roadway during cornering.

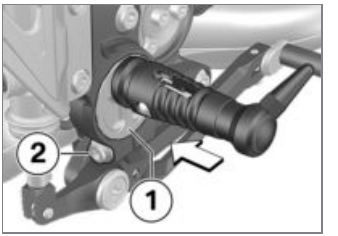
Risk of falling

- Do not use footrests as an indicator of critical bank angles.◀
- Setting of the rotor is the same on the right and left.

- The position of the rotor must be set identically on the right and left.



- The foot distance and a higher foot position can be adjusted on the rotor **2**.
- Slacken bolt **1** sufficiently that the rotor **2** can be pulled out.
- Rotor **2** is adjustable in 12 positions. To adjust to the highest position, turn rotor **2** through 180° to the right or left.



- Fit rotor **1** in the desired position and tighten bolt **2**.

	Rotor to base plate
20 Nm	

⚠ WARNING

Incorrectly adjusted footrest as a result of movement of the rotor.

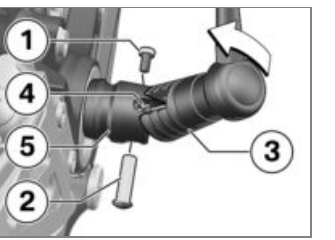
Risk of falling

- The footrest setting must be adjusted accordingly if the rotor has moved.◀

- The footrest may only fold upwards and slightly towards the rear.

Adjusting footrest hinge

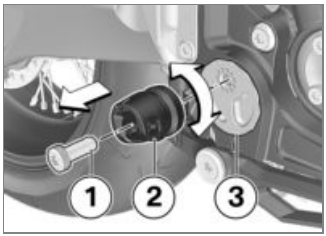
- Setting of the footrest joint is the same on the right and left.



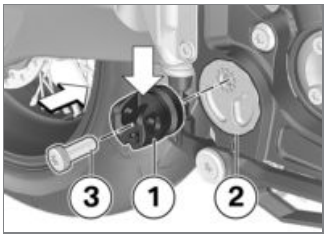
- Remove screw **1** and bolt **2**.
- Fold the footrest body **3** in the direction of the arrow.

» The spring is relieved.

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

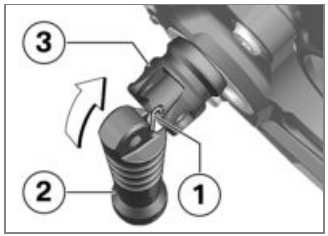


- Remove bolt **1**.
- Pull footrest hinge **2** from the rotor **3**.
- Turn the footrest hinge **2** clockwise or anticlockwise to change its position.

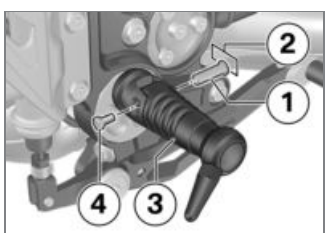


- When the footrest hinge **1** is finally fitted to the rotor **2**, the opening **arrow must** point upwards or up and slightly to the rear.
- Install screw **3**.
- Remove and refit the footrest hinge on the shifting unit side in the same way.

	Positioning joint to rotor
20 Nm	



- Attach the spring **1** to the eye in the footrest hinge **3**.
- Fold footrest body **2** up in the footrest hinge **3**.

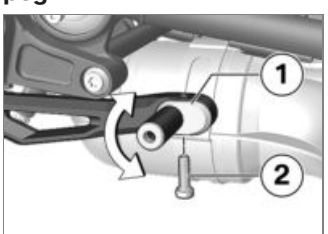


- Install bolt **1** with head flattened to one side **2** flush in

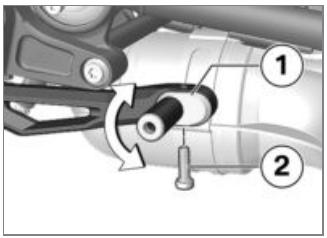
the footrest hinge and footrest body **3**.
- Install screw **4**.
- Remove and refit the footrest body on the shifting unit side in the same way.

Footrest body to positioning joint
3 Nm

Adjusting footbrake lever peg



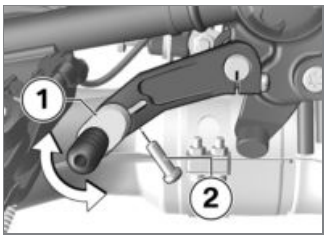
- Foot distance and height to peg **1** can be adjusted by turning to different positions.
- Remove bolt **2**.



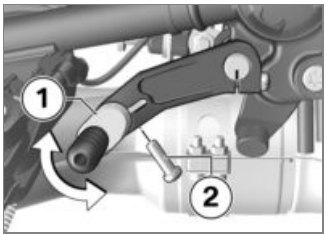
- Clean the threads.
- Turn peg **1** to the desired position.
- Fit **new** bolt **2**.

Foot piece on footbrake lever
Thread-locking compound: Micro-encapsulated
10 Nm

Adjusting gearshift lever peg



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



- Clean the threads.
- Turn peg **1** to the desired position.
- Fit **new** bolt **2**.

Foot piece on gearshift lever
Thread-locking compound: Micro-encapsulated
10 Nm

Riding

Safety instructions 64
Checklist 66
Starting 66
Running in 69
Brakes 70
Parking your motorcycle 71
Refuelling 72
Securing motorcycle for transportation 74

Safety instructions

Rider's equipment

The following clothing will protect you for every journey:
– Helmet
– Motorcycling jacket and trousers
– Gloves
– Boots

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

ATTENTION

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

Discolouration on the seat

- Avoid contact with non-colour-fast materials.◀

Load correctly

WARNING

Handling adversely affected by overloading and imbalanced loads

Risk of falling

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

– with tank bag OA

- Note the maximum permissible payload of the tank rucksack.

 Payload of tank rucksack
max 5 kg◁

– with rear softbag OA

- Note the maximum payload of the rear softbag.

 Payload of rear softbag
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.:
– Spring-strut and shock-absorber system not set up correctly
– Imbalanced load
– Loose clothing
– Insufficient tyre pressure
– Poor tyre tread
– On-board luggage systems such as a tank bag or rear softbag. Observe the speed limit

indicated on the label in the respective luggage system.

Risk of poisoning

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

WARNING

Exhaust gases adversely affecting health

Risk of asphyxiation

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

Risk of burn injury

CAUTION

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

Risk of burn injury

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

Catalytic converter

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

The following guidelines must be observed:

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

ATTENTION

Unburned fuel in catalytic converter

Damage to catalytic converter

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

Risk of overheating

ATTENTION

Engine running for prolonged period with vehicle at standstill

Overheating due to insufficient cooling; in extreme cases vehicle fire

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

Tampering

ATTENTION

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

Damage to the affected parts, failure of safety-relevant functions, voiding of warranty
- Do not tamper with the vehicle in any way that could result in tuned performance.◀

Checklist

Comply with checklist

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

Always before riding off

- Check operation of the brake system.
- Check operation of the lights and signalling equipment.
- Checking clutch function (➠ 91).
- Checking tyre tread depth (➠ 92).
- Checking tyre pressure (➠ 91).
- Check that cases and luggage are securely held in place.

Every 3rd refuelling stop

- Adjusting the damping characteristic for rear wheel (➠ 56).
- Checking engine oil level (➠ 85).
- Checking front brake pad thickness (➠ 87).
- Check rear brake pad thickness (➠ 88).
- Checking brake-fluid level, front brakes (➠ 89).
- Checking the brake-fluid level, rear brakes (➠ 90).

Starting

Start engine

- Switching on ignition (➠ 34).
» Pre-Ride-Check is performed. (➠ 67)
» ABS self-diagnosis is performed (➠ 68)
- Select neutral or, if a gear is engaged, pull the clutch lever.

NOTICE

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

- Cold starts and low temperatures:
» Pull the clutch lever.



- Press starter button **1**.

NOTICE

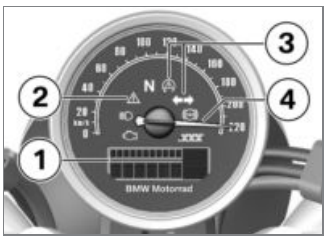
The start attempt is automatically interrupted if battery voltage is too low. Recharge the battery before you start the engine, or use jump leads and a donor battery to start.
See the subsection on jump starting in "Maintenance" for more details.◀

» The engine starts.
» Consult the troubleshooting chart below if the engine refuses to start. (➠ 120)

Pre-Ride-Check

After having switched on the ignition, the instrument cluster tests the instrument dials, the warning and indicator lights as well as the displays and completes the so-called "Pre-Ride-Check". The test is aborted if you start the engine before it completes.

Phase 1



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

Phase 2

The general warning light **2** no longer lights up permanently and starts flashing.
The needle **4** for the speed indicator moves to maximum speed.

Phase 3

The needle **4** for the speed indicator moves to zero.
The indicator and warning lights go out or assume operational status, as applicable.

The malfunction indicator lamp only goes out after 15 seconds.

The display switches to its ordinary display mode. The on-board computer readings appear on the display.

If the needle did not move, an indicator or warning light did not switch on or segments on the display are missing:
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad dealer.

ABS self-diagnosis

BMW Motorrad Integral ABS performs self-diagnosis to ensure its operability. Self-diagnosis starts automatically when you switch on the ignition.

Phase 1

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


ABS telltale and warning light flashes.

Phase 2

» Test of the wheel-speed sensors as the vehicle pulls away from rest.


ABS telltale and warning light flashes.

ABS self-diagnosis completed

» The ABS warning light goes out.

 ABS self-diagnosis not completed
The ABS function is not available, because self-diagnosis did not complete. (The motorcycle has to reach a defined minimum speed for the wheel speed sensors to be checked: 5 km/h)

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

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

ASC self-diagnosis

BMW Motorrad ASC performs self-diagnosis to ensure its operability. Self-diagnosis is performed automatically when you switch on the ignition.

Phase 1

» Test of the diagnosable system components with the vehicle at a standstill.

– with Automatic Stability Control (ASC) OE


ASC telltale and warning light slow-flashes.◁

Phase 2

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

– with Automatic Stability Control (ASC) OE


ASC telltale and warning light slow-flashes.◁

ASC self-diagnosis completed

» The ASC telltale and warning light goes out.

• Check all the telltale and warning lights.

 ASC self-diagnosis not completed
The ASC function is not available, because self-diagnosis did not complete. (The motorcycle has to reach a defined minimum speed for the wheel sensors to be checked: min 5 km/h)

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

• You can continue to ride. Bear in mind that the ASC function is not available.

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

Running in

Engine

• Until the running-in check, vary the throttle opening and engine-speed range frequently; avoid riding at constant engine rpm for prolonged periods.

• Try to do most of your riding during this initial period on twisting, fairly hilly roads.

• Be aware of the loads when running in the vehicle.

 Load condition during run in
no full load (Odometer reading 0...1000 km)

• Be aware of the running-in speeds.

 Entry speeds
0...1000 km
max 50 km/h (1st gear)
max 70 km/h (2nd gear)
max 90 km/h (3rd gear)
max 110 km/h (4th gear)
max 125 km/h (5th gear)
max 140 km/h (6th gear)

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

 Mileage until the first running-in check
500...1200 km

Brake pads

New brake pads have to be run in before they can achieve their optimum frictional force. You can compensate for this initial reduction in braking efficiency by ex-

erting greater pressure on the levers.

WARNING

New brake pads
Longer stopping distance, risk of accident
- Apply the brakes in good time.◀

Tyres

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

WARNING

New tyres losing grip on wet roads and at extreme bank angles
Risk of accident
- Ride carefully and avoid extremely sharp inclines.◀

Brakes

How can stopping distance be minimised?

Each time the brakes are applied, a load distribution shift takes place with the load shifting forward from the rear to the front wheel. The sharper the vehicle decelerates, the more load is shifted to the front wheel. The higher the wheel load, the more braking force can be transmitted without the wheel locking.
To optimise stopping distance, apply the front brakes rapidly and keep on increasing the force you apply to the brake lever. This makes the best possible use of the dynamic increase in load at the front wheel. Remember to pull the clutch at the same time. In the extreme emergency braking situations that are trained so frequently, brake pressure is generated as rapidly as possible and with the rider's full force applied to the brake levers; under these circumstances the dynamic shift in load distribution cannot keep pace with the increase in deceleration and the tyres cannot transmit the full brake force to the surface of the roadway. BMW Motorrad ABS prevents the front wheel from locking up.

WARNING

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

Descending mountain passes

WARNING

Braking only with the rear brake on mountain descents
Brake fade, destruction of the brakes due to overheating
- Use both front and rear brakes, and make use of the engine's braking effect as well.◀

Wet and dirty brakes

Wetness and dirt on the brake discs and the brake pads diminish braking efficiency.
Delayed braking action or poor braking efficiency must be reckoned with in the following situations:
– Riding in the rain or through puddles of water.
– After the motorcycle has been washed.
– Riding on salted or gritted roads.
– After work has been carried on the brakes, due to traces of oil or grease.
– Riding on dirt-covered surfaces or off-road.

WARNING

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

Parking your motorcycle

Side stand

- Switch off the engine.

ATTENTION

Poor ground underneath the stand
Risk of damage to parts if vehicle topples
- Always check that the ground under the stand is level and firm.◀

ATTENTION

Additional weight placing strain on the side stand
Risk of damage to parts if vehicle topples
- Do not sit or lean on the vehicle while it is propped on the side stand.◀

- Extend the side stand and prop the motorcycle on the stand.
- If the camber of the roadway permits, turn the handlebars all the way to the left.
- On a gradient, the motorcycle should always face uphill; select 1st gear.

Refuelling

Fuel grade

Requirement

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

ATTENTION

Engine operation with leaded fuel

Damage to catalytic converter

- Do not attempt to run the vehicle on leaded fuel or fuel with metallic additives (e.g. manganese or iron).◀
- You can run the engine on fuel with a maximum ethanol content of 10%, i.e. E10.

 Recommended fuel grade
Super Plus, unleaded 98 ROZ/RON 93 AKI

 Alternative fuel grade
Super unleaded (slight performance restriction and potentially higher consumption) - Super Plus unleaded (max. 10 % ethanol, E10) 95...98 ROZ/RON 90...93 AKI

Refuelling

WARNING

Fuel is highly flammable

Risk of fire and explosion

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

ATTENTION

Component damage

Component damage caused by overfilled fuel tank

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

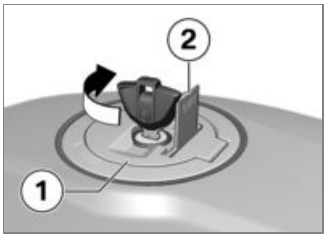
ATTENTION

Wetting of plastic surfaces by fuel

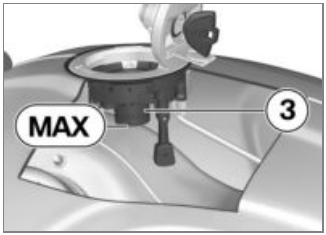
Damage to the surfaces (surfaces become unsightly or dull)

- Clean plastic surfaces immediately after contact with fuel.◀

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



- Open the protective cap **2**.
- Turn the ignition key clockwise to unlock the sealing cap of the fuel tank **1** and open it.



- Refuel with fuel of the grade stated below; do not fill the tank beyond the lower edge of the filler neck **3**.

NOTICE

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

NOTICE

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

Fuel tank capacity
approx. 17.0 l

Fuel reserve
approx. 3.5 l

- Firmly press the sealing cap of the fuel tank to close it.
- Remove the ignition key and close the protective cap.

Securing motorcycle for transportation

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



ATTENTION

Vehicle topples to side when being lifted on to stand

Risk of damage to parts if vehicle topples

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



ATTENTION

Trapping of components

Component damage

- Do not trap components such as brake lines or cable legs.◀
- At the front, loop a strap over the bottom fork bridge on each side.
- Pull the straps down and tight.



- Secure the tensioning straps at the rear on both sides to the frame for the rear footrest and tighten.
- Tighten all tensioning straps evenly.

» The vehicle's springs are compressed.

Engineering details

General instructions 76
Anti-lock brake system (ABS) 76
Automatic Stability Control (ASC) 78

General instructions

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

Anti-lock brake system (ABS)

How does ABS work?

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

What are the effects of surface irregularities?

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

Rear wheel lift

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

WARNING

Rear wheel lift due to severe braking

Risk of falling

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

What is the design baseline for BMW Motorrad ABS?

Within the limits imposed by physics, the BMW Motorrad ABS ensures directional stability on any surface.

The system is not optimised for special requirements that apply under extreme competitive situations off-road or on the track.

Special situations

The speeds of the front and rear wheels are compared as one means of detecting a wheel's incipient tendency to lock. If the system registers implausible values for a lengthy period the ABS function is deactivated for safety reasons and an ABS fault message is issued. Self-diagnosis has to complete before fault messages can be issued.

In addition to problems with the BMW Motorrad ABS, exceptional riding conditions can also cause a fault message to be issued:

– Riding for a lengthy period with the front wheel lifted off the ground (wheelie)
– Rear wheel rotating with the vehicle held stationary by application of the front wheel brake (burn-out)
– Heating up with the motorcycle on the centre stand or an auxiliary stand, engine idling or with a gear engaged
– Rear wheel locked for a lengthy period, for example while descending off-road

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

How important is regular maintenance?

WARNING

Brake system not regularly serviced

Risk of accident

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

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 when cornering
Risk of accident despite ABS

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

Automatic Stability Control (ASC)

How does ASC work?

– with Automatic Stability Control (ASC)[OE]

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

Special situations

– with Automatic Stability Control (ASC)[OE]

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

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

Exceptional riding conditions:

– Riding on the rear wheel (wheelie) with deactivated ASC for a prolonged period of time

– Moving the rear wheel in a circle while applying the front wheel brake (burn-out)
– Heating up with the motorcycle on the centre stand or an auxiliary stand, engine idling or with a gear engaged

Switch the ignition off and on and subsequently move the vehicle at a speed over 5 km/h to reactivate ASC.

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

When riding on a slippery surface, never snap the throttle grip fully closed without pulling the clutch at the same time. Engine braking torque can cause the rear wheel to lock, with a corresponding loss of stability. The BMW Motorrad ASC is unable to control a situation of this nature.

Slippery surface

On very loose surfaces (for example sand or snow), the ASC's attempts to control propulsive power might reduce drive to the extent that the rear wheel no longer turns. Under these circumstances, BMW Motorrad recommends temporarily switching off ASC.
Bear in mind that the rear wheel will spin on the loose surface and close the throttle in good time before you reach a firm surface. Then reactivate ASC.

Maintenance

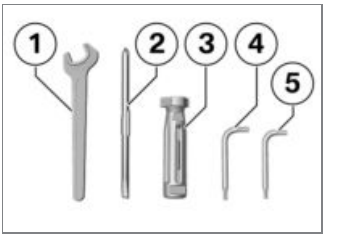
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General instructions

The "Maintenance" chapter describes straightforward procedures for checking and replacing certain wear parts.
Special tightening torques are listed as applicable. The tightening torques for the threaded fasteners on your vehicle are listed in the section entitled "Technical data".
Further information on maintenance and repair work is available from your BMW Motorrad authorised dealer in the form of a DVD.

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

Toolkit



1 Open-ended spanner
Width across flats 14
– Adjusting mirror arm (➠ 52).

2 Reversible screwdriver blade
With star-head and plain-tip ends
– Adjusting the damping characteristic for rear wheel (➠ 56).
– Replacing bulbs for front and rear turn indicators (➠ 102).

3 Screwdriver handle
– Topping up the engine oil (➠ 86).
– Use with screwdriver insert.

4 Torx bit, T25
– Loosen positive battery terminal.

5 T20 torx bit
– Replacing bulbs for low-beam and high-beam headlight (➠ 100).
– Replacing bulb for parking light (➠ 101).

Front-wheel stand

Installing the front-wheel stand

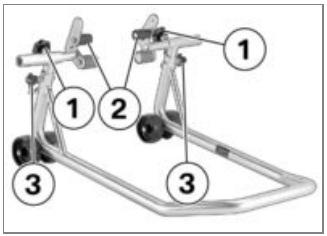
ATTENTION

Use of the BMW Motorrad front wheel stand without accompanying use of centre stand or auxiliary stand

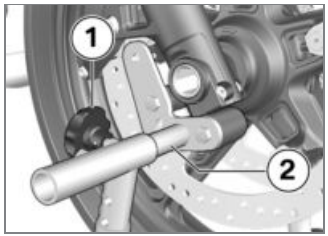
Risk of damage to parts if vehicle topples

- Place the motorcycle on its centre stand or another auxiliary stand before lifting the front wheel with the BMW Motorrad front-wheel stand.◀
- Place the motorcycle on an auxiliary stand; BMW Motorrad recommends the BMW Motorrad auxiliary stand.
- Install the rear-wheel stand (➠ 84).
- Use basic stand with front-wheel adapter.

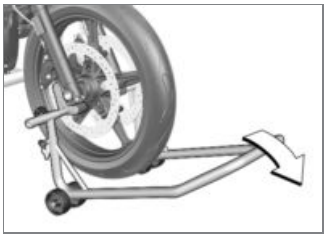
» The basic stand and its accessory parts are available from your BMW Motorrad dealer.



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



- Align the two adapters **2** so that the front forks are securely seated.
- Tighten clamping screws **1**.



ATTENTION

Centre stand retracts if motorcycle is lifted too high

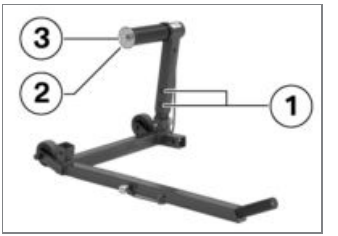
Risk of damage to parts if vehicle topples

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

Rear-wheel stand

Install the rear-wheel stand

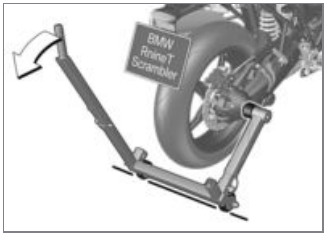
- Place the motorcycle on its stand on firm, even ground.
- Use the rear-wheel stand with the rear axle adapters. The rear-wheel stand and its accessory components are available from your BMW Motorrad authorised dealer.



- Use screws **1** to set the rear-wheel stand to the desired height.



- Push the rear-wheel stand from the right onto the rear axle.
- Push the retaining disc on from the left, while holding the unlock button down.



ATTENTION

Vehicle topples to side when being lifted on to stand

Risk of damage to parts if vehicle topples

- Secure the vehicle to prevent it toppling, preferably with the assistance of a second person.◀
- Hold the motorcycle upright and at the same time press the handle of the stand back until both rollers of the stand are on the ground.
- Then press the handle down to the ground.

Engine oil

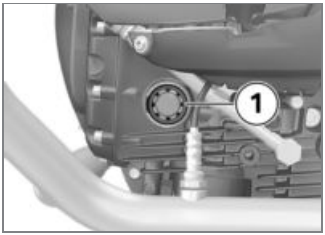
Checking engine oil level

ATTENTION

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

Engine damage

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



- Check the oil level in oil-level indicator **1**.



Engine oil, specified level	
between **MIN** and **MAX** marks	

If the oil level is below the MIN mark:

- Topping up the engine oil (➠ 86).

If the oil level is above the MAX mark:

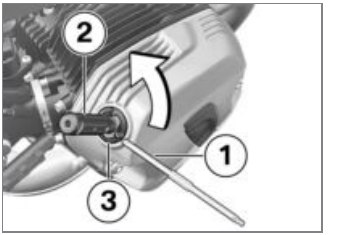
- Have the oil level corrected by a specialist workshop, preferably an authorised BMW Motorrad dealer.

NOTICE

As a contribution to reducing environmental impact, BMW Motorrad recommends checking the engine oil on occasion after a trip of at least 50 km.◀

Topping up the engine oil

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



- Wipe the area around the oil filler neck clean.
- Insert cross-head end of reversible screwdriver insert **1** into screwdriver handle **2** (onboard toolkit).
- Position the tool on the closure **3** and turn anticlockwise.
- Remove cap **3** of the oil filler neck.

ATTENTION

Use of insufficient engine oil or too much engine oil
Engine damage

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

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

- Checking engine oil level (➠ 85).
- Install the closure **3**.

Brake system

Checking function of brakes

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

If pressure points are not clearly perceptible:

ATTENTION

Work on brake system not in compliance with correct procedure

Risk to operational reliability of the brake system

- Have all work on the brake system undertaken by trained and qualified specialists.◀
- Have the brakes checked by a specialist workshop, preferably an authorised BMW Motorrad dealer.

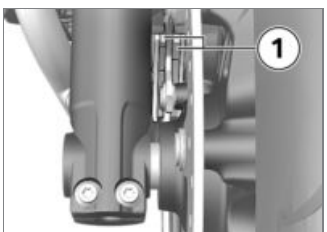
Checking front brake pad thickness

WARNING

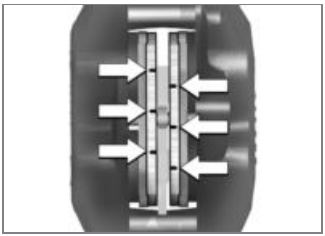
Brake-pad thickness less than permissible minimum

Diminished braking effect, damage to the brakes

- In order to ensure the dependability of the brake system, do not permit the brake pads to wear past the minimum permissible thickness.◀
- Place the motorcycle on its stand on firm, even ground.



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



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

- Look out for wear indicating marks.

If the wear indicating marks are no longer clearly visible:

- Have the brake pads replaced by a specialist workshop, preferably an authorised BMW Motorrad dealer.

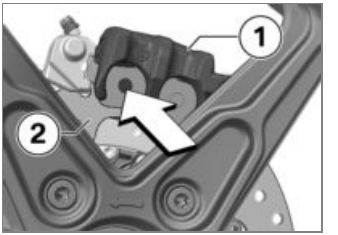
Check rear brake pad thickness

WARNING

Brake-pad thickness less than permissible minimum

Diminished braking effect, damage to the brakes

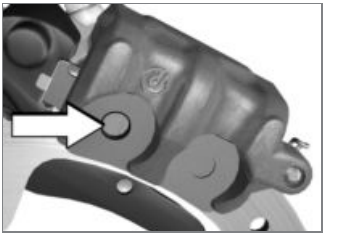
- In order to ensure the dependability of the brake system, do not permit the brake pads to wear past the minimum permissible thickness.◀
- Place the motorcycle on its stand on firm, even ground.



- Visually inspect the brake pads to ascertain their thickness. Viewing direction: from the left toward brake caliper **1**.

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

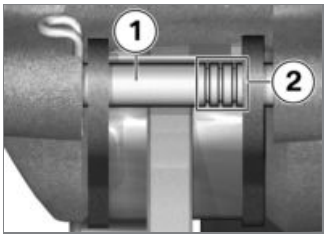
- Have the brake pads replaced by a specialist workshop, preferably an authorised BMW Motorrad dealer.



	Brake-pad wear limit, rear
1.0 mm (friction pad only, without backing plate. Make sure that the brake disc is not visible through the bore in the inboard brake block.)	

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: wear limit reached; check as described above.

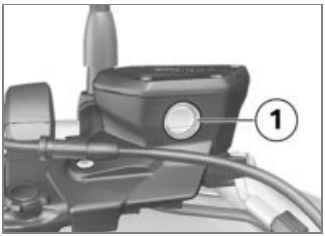
Checking brake-fluid level, front brakes

WARNING

Not enough brake fluid in brake fluid tank

Considerably reduced braking power due to air in the brake system

- Adjust the riding mode immediately until the fault is rectified.
- Check the brake-fluid level at regular intervals.◀
- Make sure the ground is level and firm and hold the motorcycle upright.



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

NOTICE

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



Brake fluid level, front
Brake fluid, DOT4
The brake fluid level may not drop below the **MIN** mark. (Brake fluid tank horizontal, vehicle upright.)

If the brake fluid level drops below the permitted level:

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

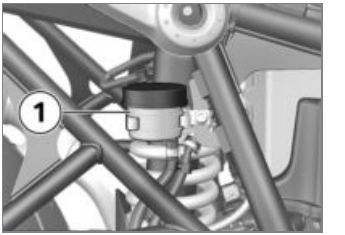
Checking the brake-fluid level, rear brakes

WARNING

Not enough brake fluid in brake fluid tank

Considerably reduced braking power due to air in the brake system

- Adjust the riding mode immediately until the fault is rectified.
- Check the brake-fluid level at regular intervals.◀
- Make sure the ground is level and firm and hold the motorcycle upright.



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

NOTICE

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



Brake fluid level, rear
Brake fluid, DOT4
The brake fluid level must not drop below the **MIN** mark. (Brake-fluid reservoir, horizontal)

If the brake fluid level drops below the permitted level:

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

Clutch

Checking clutch function

- Pull the clutch lever.

» There is a clearly perceptible pressure point.

If the pressure point is not clearly perceptible:

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

Tyres

Checking tyre pressure

WARNING

Incorrect tyre pressure

Impaired handling characteristics of the motorcycle, shorter useful tyre life

- Always check that the tyre pressures are correct.◀

WARNING

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

Sudden loss of tyre pressure

- Install valve caps fitted with rubber sealing rings and tighten firmly.◀
- Place the motorcycle on its stand on firm, even ground.
- Check tyre pressures against the data below.

Tyre pressure, front
2.5 bar (One-up and outlet with passenger, when tyre is cold)

 Tyre pressure, rear
2.9 bar (One-up and outlet with passenger, when tyre is cold)

If tyre pressure is too low:

- Correct tyre pressure.

Wheel rims and tyres

Checking rims

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

Check spokes

– With cross-spoked wheels OE

or

– With spoked wheels OE

- Place the motorcycle on its stand on firm, even ground.
- Draw the handle of a screwdriver or a similar instrument across the spokes and listen to the notes of the individual spokes.

If the notes vary:

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

Checking tyre tread depth

WARNING

Riding with badly worn tyres
Risk of accident due to impaired handling

- If applicable, have the tyres changed in good time before they wear to the minimum tread depth permitted by law.◀
- Place the motorcycle on its stand on firm, even ground.
- Measure the tyre tread depth in the main tread grooves with wear marks.

NOTICE

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

If the tyre tread is worn to minimum:

- Replace tyre or tyres, as applicable.

Wheels

Effect of wheel size on ABS

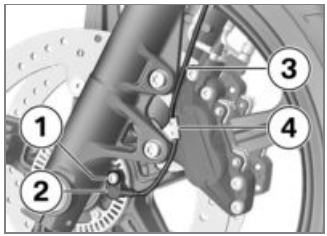
The wheel size has a large influence on the functionality of the ABS system. In particular, the diameter and the width of the vehicle's wheels are programmed into the control unit and are fundamental to all calculations. Any change in these variables, caused by a switch to non-standard installed wheels, can have serious effects on the performance of these control systems.

The sensor rings are essential for correct wheel speed detection; they too must match the motorcycle's control systems and consequently cannot be replaced.

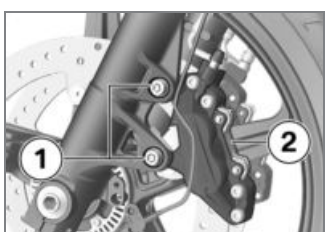
If you decide that you would like to fit non-standard wheels to your motorcycle, it is very important to consult a specialist workshop beforehand, preferably an authorised BMW Motorrad dealer. In some cases, the data programmed into the control units can be changed to suit the new wheel sizes.

Removing front wheel

- Place the motorcycle on an auxiliary stand. BMW Motorrad recommends you use the BMW Motorrad rear-wheel stand.
- Install the rear-wheel stand (➠ 84).
- Lift the front of the motorcycle until the front wheel is clear of the ground, preferably using a BMW Motorrad front-wheel stand.
- Installing the front-wheel stand (➠ 82).
- Mask off the parts of the wheel rim that could be scratched when removing the brake caliper.

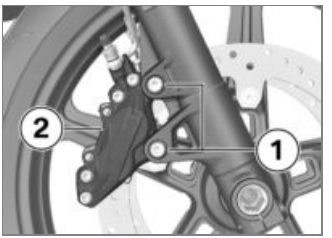


- Remove screw **1**.
- Release wheel-speed sensor **2**.
- Disengage cable **3** from holder **4**.

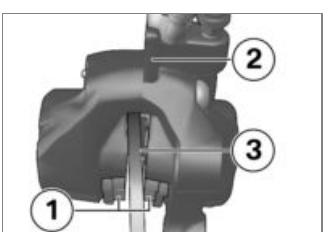


- Remove screws **1**.

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



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



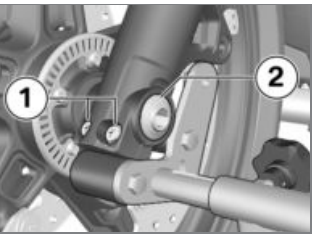
- Force the brake pads **1** slightly apart by rotational movement of the brake caliper **2** against brake disc **3**.

ATTENTION

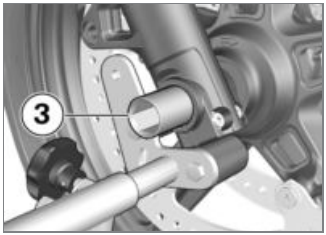
Unwanted inward movement of the brake pads

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

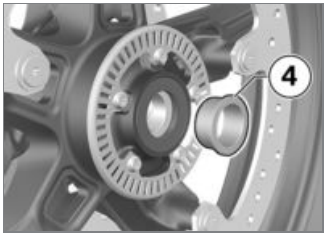
- Do not operate the brakes with a brake caliper not correctly secured.◀
- Carefully pull the brake calipers back and out until clear of the brake discs.



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



- Withdraw quick-release axle **3**, support the front wheel when doing this.
- Set down front wheel and roll forwards out of the front suspension.



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

Installing front wheel

WARNING

Use of a non-standard wheel
Malfunctions in control attempts made by the ABS and ASC
- See the information on the effect of wheel size on the ABS and ASC systems at the start of this chapter.◀

ATTENTION

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



- Lubricate the running surface of spacer bush **4**.

Lubricant
Optimoly TA

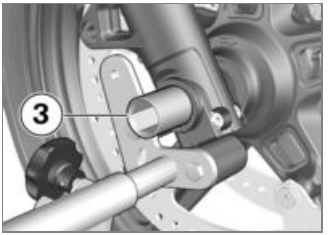
- Install spacing bushing **4**.

ATTENTION

Front wheel installed wrong way round

Risk of accident

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



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

Lubricant
Optimoly TA

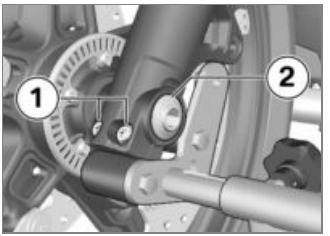
WARNING

Improper installation of the quick-release axle

Loosening of the front wheel

- After securing the brake calipers and relieving the front forks, tighten the quick-release axle and the axle clamping to the specified tightening torque.◀

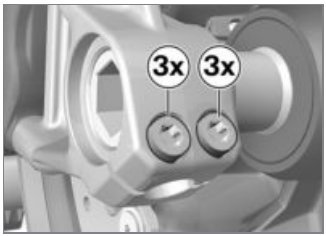
- Lift the front wheel and insert the quick-release axle **3**.



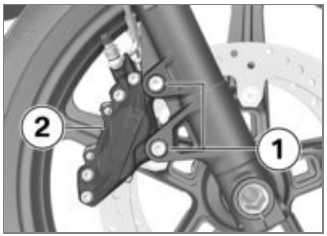
- Install screw **2**. Counter-hold quick-release axle on the right-hand side.

Bolt on quick-release axle
50 Nm

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

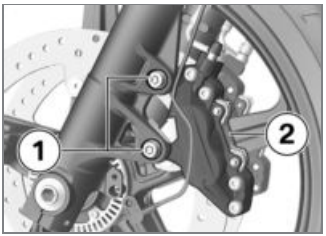


Clamping screws in axle holder
Tightening sequence: Tighten screws six times in alternate sequence
19 Nm



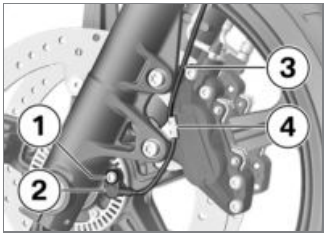
- Hold right brake caliper **2** in position and install screws **1**.

Brake caliper on the telescopic forks
38 Nm



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

Brake caliper on the telescopic forks
38 Nm



- Hold the wheel speed sensor **2** in position.
- Install screw **2**.
- Secure the cable **3** in the holder **4**.
- Operate the brake several times until the brake pads are bedded.
- Remove the adhesive tape from the wheel rim.
- Removing the front-wheel stand.
- Extend the side stand.

ATTENTION

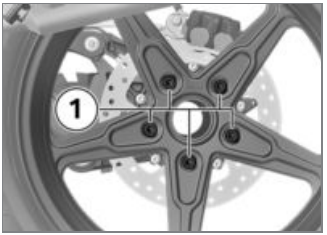
Vehicle topples to side when being lifted on to stand

Risk of damage to parts if vehicle topples

- Secure the vehicle to prevent it toppling, preferably with the assistance of a second person.◀
- Remove the rear-wheel stand.
- Place the motorcycle on its side stand.

Removing rear wheel

- Lift the motorcycle, preferably with a BMW Motorrad rear-wheel stand.
- Install the rear-wheel stand (➠ 84).
- Engage first gear.



- Remove axle **1**, while supporting the wheel.
- Roll the rear wheel out toward the rear.

Installing the rear wheel

WARNING

Use of a non-standard wheel

Malfunctions in control attempts made by the ABS and ASC

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

NOTICE

If the tread type is changed from lugged tyres to road tyres or vice versa, the ASC needs to be re-programmed accordingly.◀

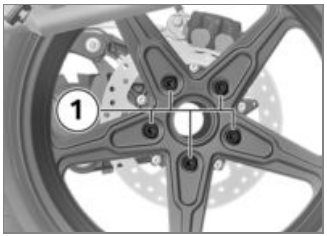
– With off-road tyres OE

or

– Without off-road tyres OE

- When changing the profile type, have the ASC programmed by a specialist workshop, preferably a BMW Motorrad Retailer.◁

- Clean wheel centring and contact surfaces.
- Position the rear wheel on the wheel carrier.



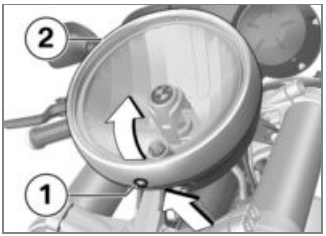
- Install screws **1**.

Rear wheel to wheel carrier
Tightening sequence: Tighten in a crosswise pattern
60 Nm

Headlight

Removing reflector

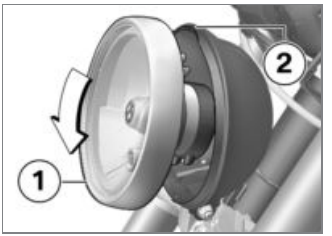
- Switching off ignition (➠ 35).
- Place the motorcycle on its stand on firm, even ground.



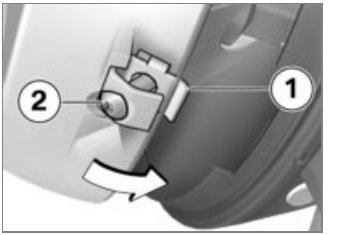
- Slacken screw **1** several turns.
- Carefully ease the bottom of the reflector **2** in the direction of the **arrow** and lift it up to remove it.

» The bulbs can be replaced.

Installing reflector



- Position the reflector **1** behind the tab **2** and pivot it down.
- Centre the reflector **1**.



⚠ WARNING

Deformation of the clamp due to heavy impact on the light housing

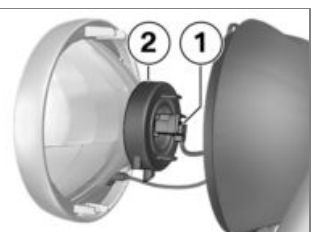
Risk of accidents due to inadequately secured reflector

- Avoid all heavy impacts.◀
- Use a screwdriver to push screw **2** up.
- Pivot the reflector back.
- » Clamp **1** engages the housing.
- Tighten screw **2**.

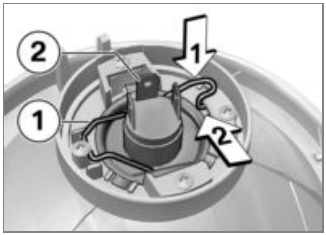
Light source

Replacing bulbs for low-beam and high-beam headlight

- Switching off ignition (➠ 35).
- Place the motorcycle on its stand on firm, even ground.
- Removing reflector (➠ 99).



- Disconnect plug **1** for low-beam and high-beam headlight.
- Pull the rubber cap **2** off the light housing.

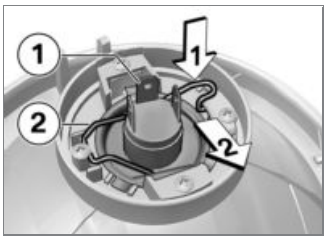


- Press spring clip **1** down and swing it aside clear of the catch, then flip the spring clip up to open.
- Working **carefully**, remove bulb **2** for high-beam and low-beam headlight from the light housing.

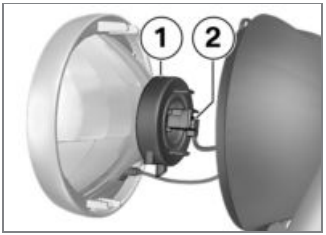
- Replace the defective bulb.

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

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



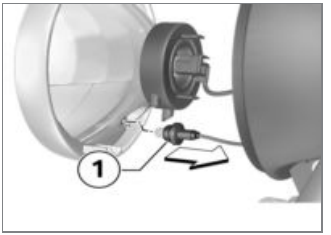
- Insert bulb **1** into the light housing.
- Flip spring clip **2** closed and seat it in the catch.



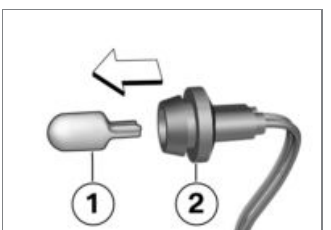
- Install rubber cap **1**.
- Connect plug **2** for low-beam and high-beam headlight.
- Install the reflector.

Replacing bulb for parking light

- Switching off ignition (➠ 35).
- Place the motorcycle on its stand on firm, even ground.
- Removing reflector (➠ 99).



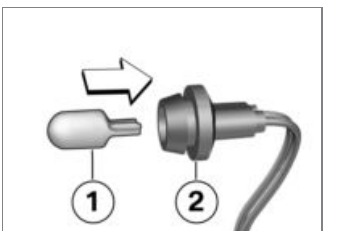
- Pull the socket **1** for the side light from the light housing.



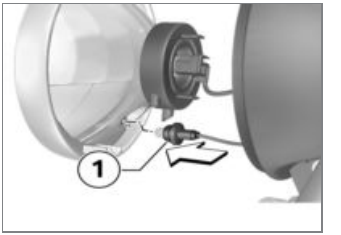
- Remove bulb **1** from socket **2**.
- Replace the defective bulb.

Bulb for parking light
W5W / 12 V / 5 W

- Use a clean, dry cloth to hold the bulb in order to keep the glass free of foreign matter.



- Insert bulb **1** for the parking light into socket **2**.



- Insert socket **1** for the parking light into the light housing.
- Install the reflector.

Replacing bulbs for front and rear turn indicators

- Switching off ignition (➠ 35).
- Place the motorcycle on its stand on firm, even ground.



- Remove screw **1**.



- Pull the glass out of the light housing at the threaded-fastener side.

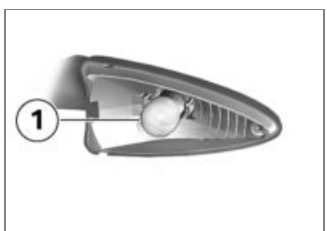


- Remove the bulb **1** by turning it anticlockwise.
- Replace the defective bulb.

Bulbs for flashing turn indicators, front
RY10W / 12 V / 10 W
– with LED flashing turn indicators OE
LED◁

Bulbs for flashing turn indicators, rear
RY10W / 12 V / 10 W
– with LED flashing turn indicators OE
LED◁

- Use a clean, dry cloth to hold the bulb in order to keep the glass free of foreign matter.



- Install the bulb **1** by turning it clockwise.



- Working from the inboard side, insert the glass into the light housing and close the housing.



- Install screw **1**.

Replacing LED turn indicators

– with LED flashing turn indicators OE

- If an LED turn indicator has failed, it must be replaced by a specialist workshop, preferably an authorised BMW Motorrad Retailer.

Replacing LED rear light

If the LEDs in the rear light fail, the rear light must be replaced. Under these circumstances:

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

Jump-starting

CAUTION

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

Electric shock

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

ATTENTION

Excessive current flowing when the motorcycle is jump-started

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

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

ATTENTION

Contact between crocodile clips of jump leads and vehicle

Risk of short-circuit

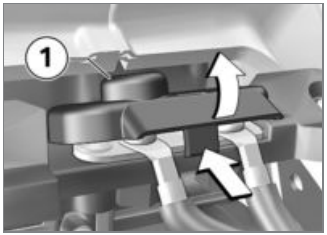
- Use jump leads fitted with fully insulated crocodile clips at both ends.◀

ATTENTION

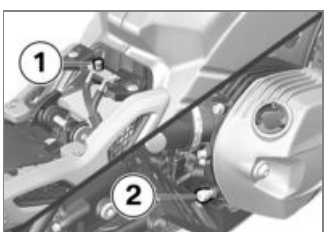
Jump-starting with a voltage greater than 12 V

Damage to the on-board electronics

- Make sure that the battery of the donor vehicle has a voltage rating of 12 V.◀
- Place the motorcycle on its stand on firm, even ground.
- Remove seat (➠ 49).



- Unclip the cover **1** at the bottom (**arrow**) and remove towards the top.



- In a first step, connect the positive battery connection point **1** to the positive terminal of the second battery using the red jump lead.
- Connect the ground support point **2** to the negative terminal of the second battery using the black jump lead.
- Run the engine of the donor vehicle during jump-starting.
- Start the engine of the vehicle with the discharged battery in the usual way; if the engine does not start, wait a few minutes before repeating the attempt in order to protect the starter motor and the donor battery.

NOTICE

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

- Allow both engines to run for a few minutes before disconnecting the jump leads.

- Disconnect the jump lead from the ground support point **2** first and then disconnect it from the positive battery connection point **1**.

Battery

Maintenance instructions

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

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

– Keep the surface of the battery clean and dry.
– Do not open the battery.
– Do not top up with water.
– Follow the loading instructions on the following pages.
– Do not turn the battery upside down.

ATTENTION

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

Battery is deep-discharged; this voids the guarantee

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

NOTICE

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

Recharging connected battery

ATTENTION

Unsuitable chargers connected to a socket

Damage to charger and vehicle electronics

- Use suitable BMW chargers. The suitable charger is available from your authorised BMW Motorrad dealer.◀
- Disconnect any devices that are connected to the socket.
- Comply with the operating instructions of the charger.
- Using the socket, charge the battery that is connected to the vehicle.

NOTICE

The motorcycle's on-board electronics know when the battery is fully charged. The on-board

socket is switched off when this happens.◀

NOTICE

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

ATTENTION

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

Damage to the on-board electronics

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

ATTENTION

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

Damage to the on-board electronics

- Disconnect the battery at the battery terminals before charging.◀
- Charge the disconnected battery directly at the terminals.

Recharging disconnected battery

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

NOTICE

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

Replacing battery

If there is a fault in the battery, seek the advice of a specialist workshop, preferably an authorised BMW Motorrad Retailer.

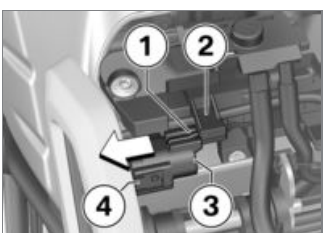
Fuses

Replace fuses

ATTENTION

Jumpering of blown fuses

Risk of short-circuit and fire
- Never attempt to jumper a blown fuse.
- Always replace a defective fuse with a new fuse of the same amperage.◀
- Switch off the ignition.
- Place the motorcycle on its stand on firm, even ground.
- Remove seat (➠ 49).



- Press the hook **1**.

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

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

NOTICE

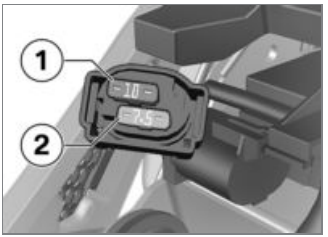
If fuse defects recur frequently have the electric circuits checked by a specialist workshop, preferably an authorised BMW Motorrad dealer.◀

- Consult the fuse assignment diagram below and replace the defective fuse.

» Fuse assignment (➠ 108)

- Reinstall the cap **3**. Make sure that the lock **4** has engaged.
- Push the fuse box into the bracket **2** until the hook **1** engages.
- Installing the seat (➠ 49).

Fuse assignment



Fuse 1	
10 A (Instrument cluster, alarm system DWA, ignition switch, OBD diagnostic socket, cut-off relay coil)	

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

Diagnostic connector

Disengaging diagnostic connector

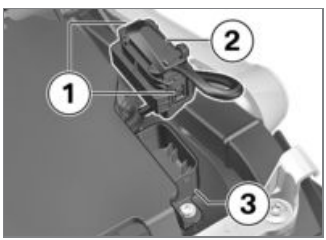
CAUTION

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

Motorcycle experiences malfunctions

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

- Remove seat (➠ 49).

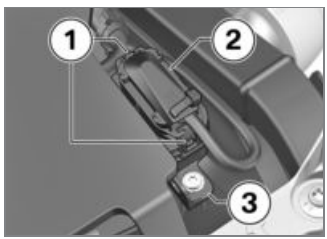


- Press the locks **1**.
- Disengage diagnostic connector **2** from holder **3**.

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

Securing the diagnostic connector

- Disconnect the interface for the diagnosis and information system.



- Seat diagnostic connector **2** in bracket **3**.

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

- Installing the seat (➠ 49).

Accessories

General instructions 112
Power sockets 112
Luggage 113

General instructions

⚠ CAUTION

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

BMW has conducted extensive testing of the parts and accessory products to establish that they are safe, functional and suitable. Consequently, BMW accepts product liability. BMW accepts no liability whatsoever for parts and accessories that it has not approved.
Whenever you are planning modifications, comply with all the legal requirements. Make sure that the vehicle does not infringe the national road-vehicle construction and use regulations applicable in your country.
Your BMW Motorrad dealer can offer expert advice on the choice of genuine BMW parts, accessories and other products.
To find out more about accessories go to:
bmw-motorrad.com/accessories

Power sockets

Notes on use of power sockets:

Automatic shutdown
The power sockets are shut down automatically under the following circumstances:
– If the battery voltage is too low to maintain the vehicle's starting capability
– If the maximum load capacity as stated in the technical data is exceeded
– During the starting operation

Connection of electrical devices
You can start using electrical devices connected to the motorcycle's sockets only when the ignition is switched on. The power supply to the sockets is switched off no more than 15 minutes after the ignition is switched off,

in order to prevent overloading of the on-board electrics.

Cable routing

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

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

Luggage

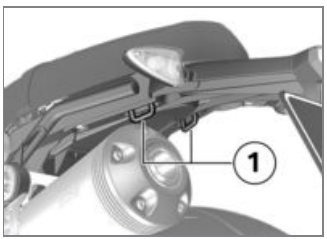
Securing luggage to motorcycle

WARNING

Handling adversely affected by overloading and imbalanced loads

Risk of falling

- Do not exceed the permissible gross weight and be sure to comply with the instructions on loading.◀



- Secure luggage (e.g. rear softbag) to lashing eyes **1**.

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

Care

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Cleaning easily damaged components 117
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Protective wax coating 118
Laying up the motorcycle 118
Restoring motorcycle to use 118

Care products

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

ATTENTION

Use of unsuitable cleaning and care products

Damage to vehicle parts

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

Washing the vehicle

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

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

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

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

WARNING

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

Diminished braking effect, risk of accident

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

ATTENTION

Effect of road salt intensified by warm water

Corrosion

- Use only cold water to wash off road salt.◀

ATTENTION

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

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

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

Cleaning easily damaged components

Plastics

ATTENTION

Use of unsuitable cleaning agents

Damage to plastic surfaces

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

Body panels

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

Headlight glass and lenses made of plastic

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

NOTICE

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



Clean with water and sponge only.



Do not use any chemical cleaning agents.

Chrome

Clean chrome sections carefully with plenty of water and motorcycle 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

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

Rubber

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

ATTENTION

Application of silicone sprays to rubber seals

Damage to the rubber seals

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

Paint care

Washing the vehicle regularly will help counteract the long-term effects of substances that damage the paint, especially if your vehicle is ridden in areas with high air pollution or natural sources of dirt, for example tree resin or pollen.

Remove particularly aggressive substances immediately, however, as otherwise the paint can be affected or become discoloured. Substances of this nature include spilt fuel, oil, grease, brake fluid and bird droppings. We recommend you use BMW Motorrad gloss polish or BMW paint cleaning agent. Marks on the paintwork are particularly easy to see after the vehicle has been washed. Remove stains of this kind immediately, using cleaning-grade benzene or petroleum spirit on a clean cloth or ball of cotton wool.

BMW Motorrad recommends using BMW tar remover for removing specks of tar. Remember to wax the parts treated in this way.

Protective wax coating

BMW Motorrad recommends applying only BMW car wax or products containing carnauba wax or synthetic wax to preserve the paintwork.

It is time to rewax the paintwork when water "puddles" on the surface, instead of forming beads.

Laying up the motorcycle

- Fill the motorcycle's fuel tank.
- Clean the motorcycle.
- Remove the battery.
- Spray the brake and clutch lever pivots and the side stand pivot mounts with a suitable lubricant.
- Coat bright metal and chrome-plated parts with an acid-free grease (e.g. Vaseline).
- Stand the motorcycle in a dry room in such a way that there is no load on either wheel.

Restoring motorcycle to use

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

Technical data

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Troubleshooting chart

The engine does not start.

Possible cause	Rectification
Side stand is extended and gear is engaged.	Retract the side stand.
Gear is engaged and clutch is not pressed.	Select neutral or pull the clutch lever.
Fuel tank is empty.	Refuelling (➠ 72).
Battery is flat.	Recharging connected battery (➠ 106).
Overheating protection for starter motor has been activated. Starter motor can only be operated for a limited period of time.	Allow the starter motor to cool down for approx. 1 minute before using it again.

Screw connections

Front wheel	Value	Valid
Brake caliper on the telescopic forks		
M10 x 40 x 1.25	38 Nm	
Clamping screws in axle holder		
M8 x 35	**Tightening sequence: Tighten screws six times in alternate sequence**	
	19 Nm	

Rear wheel	Value	Valid
Rear wheel to wheel carrier		
M10 x 53 x 1.25	**Tightening sequence: Tighten in a crosswise pattern**	
	60 Nm	

Mirror arm	Value	Valid
Mirror (locknut) to adapter		
M10 x 1.25	Left-hand thread, 22 Nm	

Mirror arm	Value	Valid
Adapter to clamping block		
M10	25 Nm	

Fuel

Recommended fuel grade	Super Plus, unleaded 98 ROZ/RON 93 AKI
Alternative fuel grade	Super unleaded (slight performance restriction and potentially higher consumption) - Super Plus unleaded (max. 10 % ethanol, E10) 95...98 ROZ/RON 90...93 AKI
Fuel tank capacity	approx. 17.0 l
Fuel reserve	approx. 3.5 l
Permitted fuel capacity	max 17 l, during transportation
Fuel consumption	5.3 l/100 km, according to WMTC

Engine oil

Engine oil, capacity	max 3.95 l, with filter change
Specification	SAE 15W-50, API SJ / JASO MA2, Additives (e.g. molybdenum-based) are not permissible because they can attack coated components of the engine, BMW Motorrad recommends BMW Motorrad ADVANTEC Pro oil.
Engine oil, quantity for topping up	max 0.5 l, Difference between MIN and MAX

BMW recommends ADVANTEC ORIGINAL BMW ENGINE OIL

Engine

Location of engine number	Crankcase, bottom right, in front of cylinder
Engine type	12 2E J
Engine design	Air/oil-cooled two-cylinder, four-stroke, opposed-twin engine with two overhead spur gear-driven camshafts and a counterbalance shaft
Displacement	1170 cm^3
Cylinder bore	101 mm
Piston stroke	73 mm
Compression ratio	12.0 : 1

Nominal output	81 kW, - at engine speed: 7750 min^{-1}
Torque	116 Nm, - at engine speed: 6000 min^{-1}
Maximum engine speed	max 8500 min^{-1}
Idle speed	$1150^{\pm 50}$ min^{-1}, Engine at regular operating temperature
Exhaust emissions standard	Euro 4

Clutch

Clutch type	Single-plate dry clutch

Transmission

Gearbox type	Helically cut 6-speed transmission with integrated torsional vibration damper, claw shift using sliding sleeve
Gearbox transmission ratios	1.737, Primary transmission 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 aluminium swinging with BMW Motorrad paralever
Gear ratio of final drive	2.910 (32/11 teeth)

Frame

Frame type	Tubular spaceframe with effective drive unit
Type plate location	Front left frame on steering head
Position of the Vehicle Identification Number	Main frame, front right bottom

Chassis and suspension

Front wheel	
Type of front suspension	Telescopic forks
Spring travel, front	125 mm, At wheel
– with lowered suspension[OE]	125 mm, At wheel

Rear wheel	
Type of rear suspension	Cast aluminium swinging with BMW Motorrad paralever
Type of rear suspension	Central shock absorber complete with torsion spring, adjustable rebound-stage damping and spring preload
Spring travel at rear wheel	140 mm
– with lowered suspension[OE]	120 mm
Recommended suspension setting for one-up riding	11 mm, Spring preload Turn the adjusting screw clockwise as far as it will go, then back it off 1.5 turns, Damping
– with lowered suspension[OE]	11 mm, Spring preload Turn the adjusting screw clockwise as far as it will go, then turn it back 1.75 turns, Damping
Recommended suspension setting for two-up riding	21 mm, Spring preload Turn the adjusting screw clockwise as far as it will go, then turn it back 0.75 turns, Damping
– with lowered suspension[OE]	21 mm, Spring preload Turn the adjusting screw clockwise as far as it will go, then turn it back 0.5 turns, Damping

Brakes

Front wheel	
Type of front brake	Hydraulically operated twin disc brake with 4-piston fixed calipers and floating brake discs
Brake-pad material, front	Sintered metal
Brake disc thickness, front	min 4 mm, Wear limit
Rear wheel	
Type of rear brake	Hydraulically actuated disc brake with 2-piston floating caliper and fixed disc
Brake-pad material, rear	Organic material
Brake disc thickness, rear	min 4.5 mm, Wear limit

Wheels and tyres

Recommended tyre sets	Your authorised BMW Motorrad dealer will be happy to supply an up-to-date list of the approved wheel/tyre combinations, or you can check the information posted on the bmw-motorrad.com website.
Speed category, front/rear tyres	V, required at least: 240 km/h
Front wheel	
Front wheel type	Aluminium cast wheel
– With cross-spoked wheels OE	Cross-spoked wheel
– With spoked wheels OE – with lowered suspension OE	Spoked wheel
Front wheel rim size	3.0" x 19"
– with lowered suspension OE	3.5" x 17"
Tyre designation, front	120 / 70 R 19
– with lowered suspension OE	120 / 70 ZR 17
Load index, front tyre	60
Wheel load, front, at unladen weight	106 kg
Permissible wheel load, front	max 180 kg
Permissible front-wheel imbalance	max 5 g

Rear wheel	
Rear-wheel type	Aluminium cast wheel
– With cross-spoked wheels OE	Cross-spoked wheel
– With spoked wheels OE – with lowered suspension OE	Spoked wheel
Rear wheel rim size	4.50" x 17"
– with lowered suspension OE	5.50" x 17"
Tyre designation, rear	170 / 60 R 17
– with lowered suspension OE	180 / 55 ZR 17
Load index, rear tyre	72
Wheel load, rear, at unladen weight	111 kg
Permissible wheel load, rear	max 300 kg
Permissible rear-wheel imbalance	max 5 g
Tyre pressures	
Tyre pressure, front	2.5 bar, One-up and outlet with passenger, when tyre is cold
Tyre pressure, rear	2.9 bar, One-up and outlet with passenger, when tyre is cold

Electrical system

Fuses	
Fuse 1	10 A, Instrument cluster, alarm system DWA, ignition switch, OBD diagnostic socket, cut-off relay coil
Fuse 2	7.5 A, DSC control unit, engine control unit, cut-off relay output, speedometer, rotational-speed sensor, alternator
Electrical rating of on-board socket	5 A
Battery	
Battery type	AGM (Absorbent Glass Mat) battery
Battery rated voltage	12 V
Battery rated capacity	12 Ah
Spark plugs	
Spark plugs, manufacturer and designation	NGK MAR8B-JDS
Electrode gap of spark plug	0.8 mm

Lighting	
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 tail light/brake light	LED
Bulbs for flashing turn indicators, front	RY10W / 12 V / 10 W
– with LED flashing turn indicators OE	LED
Bulbs for flashing turn indicators, rear	RY10W / 12 V / 10 W
– with LED flashing turn indicators OE	LED

Dimensions

Length of motorcycle	2175 mm, measured over number-plate carrier
Height of motorcycle	1330 mm, measured over mirrors, at DIN unladen weight
– with lowered suspension OE	1260 mm, measured over mirrors, at DIN unladen weight
Width of motorcycle	880 mm, measured via hand lever
Front-seat height	820 mm, measured without rider, at DIN unladen weight
– with lowered suspension OE	790 mm, measured without rider, at DIN unladen weight

Rider's inside-leg arc, heel to heel	1830 mm, measured without rider, at DIN unladen weight
– with lowered suspension[OE]	1175 mm, measured without rider, at DIN unladen weight

Weights

Vehicle kerb weight	220 kg, DIN unladen weight, ready for road, 90 % load of fuel, without optional extras
Wheel load, front, at unladen weight	106 kg
Permissible wheel load, front	max 180 kg
Wheel load, rear, at unladen weight	111 kg
Permissible wheel load, rear	max 300 kg
Permissible gross weight	430 kg
Maximum payload	210 kg

Riding specifications

Starting capability on uphill gradients (at permissible gross weight)	20°
Top speed	>200 km/h

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BMW Motorrad Service

BMW Motorrad has an extensive network of dealerships in place to look after you and your motorcycle in more than 100 countries. Authorised BMW Motorrad dealerships have the technical information and the technical know-how to carry out reliably all maintenance and repair work on your BMW.
You can locate your nearest authorised BMW Motorrad dealership by visiting our website:
bmw-motorrad.com

WARNING

Maintenance and repair work not in compliance with correct procedure
Risk of accident due to consequential damage
- BMW Motorrad recommends having work of this nature carried out on the vehicle by a specialist workshop, preferably an authorised BMW Motorrad dealer.◀

In order to help ensure that your BMW is always in optimum condition, BMW Motorrad recommends compliance with the maintenance intervals specified for your motorcycle.
Have all maintenance and repair work that is carried out confirmed in the "Service" chapter in this manual. For generous treatment of claims submitted after the warranty period has expired, evidence of regular maintenance is essential.

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

BMW Motorrad Mobility services

As the owner of a new BMW motorcycle, in the event of a breakdown you can benefit from the protection afforded by the various BMW Motorrad mobility services (e.g. BMW Mobile Service, breakdown service, vehicle recovery service).
Your authorised BMW Motorrad dealer will be happy provide information about the mobility services available to you.

Maintenance work

BMW pre-delivery check

Your authorised BMW Motorrad dealer conducts the BMW predelivery check before handing over the vehicle to you.

BMW Running-in check

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

BMW Service

The BMW Service is carried out once a year; the extent of servicing can vary, depending on the age of the vehicle and the distance it has covered. Your authorised BMW Motorrad dealer confirms that the service work has been carried out and enters the date when the next service will be due.
Riders who cover long distances in a year might have to bring in their vehicles for service before the next scheduled date. It is to allow for these cases that a maximum odometer reading is entered as well in the confirmation of service. Servicing has to be brought forward if this odometer reading is reached before the next scheduled date for the service.

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

To find out more about service go to:
bmw-motorrad.com/service

The following maintenance schedule lists the scopes of maintenance work required for your vehicle.

	500 -1200 km 300 - 750 mls	**10 000 km** 6 000 mls	**20 000 km** 12 000 mls	**30 000 km** 18 000 mls	**40 000 km** 24 000 mls	**50 000 km** 30 000 mls	**60 000 km** 36 000 mls	**70 000 km** 42 000 mls	**80 000 km** 48 000 mls	**90 000 km** 54 000 mls	**100 000 km** 60 000 mls	**12 months**	**24 months**
①	X												
②												X	
③		X	X	X	X	X	X	X	X	X	X	X[a]	
④			X		X		X		X		X		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 bevel gears rear
5 Check valve clearance
6 Change gearbox oil
7 Replace all spark plugs
8 Replace air filter element
9 Replacing the belt for the alternator
10 Adjusting the engine synchronisation
11 Change brake fluid, entire system

a annually or every 10000 km (whichever comes first)
b every 2 years or every 20000 km (whichever comes first)
c for the first time after one year, then every two years or 40000 km (whichever comes first)
d every six years or every 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 tasks in the BMW Service standard scope are listed below. The actual scope of maintenance work applicable for your vehicle may vary.

– Performing vehicle test with BMW Motorrad diagnostic system
– Visual inspection of hydraulic clutch system
– Checking steering-head bearing
– Visually inspecting brake pipes, brake hoses and connections
– Checking front brake pads and brake discs for wear
– Checking brake-fluid level, front brakes
– Checking rear brake pads and brake disc for wear
– Checking brake-fluid level, rear brakes
– Checking freedom of movement of Bowden cables and checking for kinks and chafing
– Checking tyre tread depth and tyre pressure
– Checking ease of movement of side stand
– Checking spoke tension, adjusting if necessary
– Check the lights and signalling equipment
– Function test, engine start suppression
– Final inspection and check of roadworthiness
– Setting service-due date and service countdown distance
– Checking battery charge state
– Confirm BMW service in on-board literature

BMW pre-delivery check

carried out

at_____

_____

Stamp, signature

BMW Running-in Check

carried out

at_____

at km_____

Next service

at the latest

at_____

or, when reached earlier

at km_____

_____

Stamp, signature

BMW Service
carried out

at_____
at km_____

Next service
at the latest
at_____
or, when reached earlier
at km_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Oil change, engine, with filter	☐	☐
Oil change in rear bevel gears	☐	☐
Checking valve clearance	☐	☐
Change gearbox oil	☐	☐
Renewing all spark plugs	☐	☐
Renewing air cleaner insert	☐	☐
Replacing belt for generator	☐	☐
Adjust engine synchronisation	☐	☐
Changing brake fluid, front brakes	☐	☐
Changing brake fluid, rear brakes	☐	☐

Notes

BMW Service
carried out

at_____
at km_____

Next service
at the latest
at_____
or, when reached earlier
at km_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Oil change, engine, with filter	☐	☐
Oil change in rear bevel gears	☐	☐
Checking valve clearance	☐	☐
Change gearbox oil	☐	☐
Renewing all spark plugs	☐	☐
Renewing air cleaner insert	☐	☐
Replacing belt for generator	☐	☐
Adjust engine synchronisation	☐	☐
Changing brake fluid, front brakes	☐	☐
Changing brake fluid, rear brakes	☐	☐

Notes

BMW Service
carried out

at_____
at km_____

Next service
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at_____
or, when reached earlier
at km_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
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Renewing air cleaner insert	☐	☐
Replacing belt for generator	☐	☐
Adjust engine synchronisation	☐	☐
Changing brake fluid, front brakes	☐	☐
Changing brake fluid, rear brakes	☐	☐

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carried out

at_____
at km_____

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Stamp, signature

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BMW Service
carried out

at_____
at km_____

Next service
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at_____
or, when reached earlier
at km_____

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Stamp, signature

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carried out

at_____
at km_____

Next service
at the latest
at_____
or, when reached earlier
at km_____

_____
Stamp, signature

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Notes

BMW Service
carried out

at_____
at km_____

Next service
at the latest
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or, when reached earlier
at km_____

_____
Stamp, signature

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Changing brake fluid, rear brakes	☐	☐

Notes

BMW Service
carried out

at_____
at km_____

Next service
at the latest
at_____
or, when reached earlier
at km_____

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Stamp, signature

Work performed

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Notes

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carried out

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at km_____

Next service
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_____
Stamp, signature

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Notes

BMW Service
carried out

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at km_____

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Stamp, signature

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	Yes	No
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Notes

BMW Service
carried out

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at km_____

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at the latest
at_____
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Stamp, signature

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	Yes	No
BMW Service	☐	☐
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Adjust engine synchronisation	☐	☐
Changing brake fluid, front brakes	☐	☐
Changing brake fluid, rear brakes	☐	☐

Notes

BMW Service
carried out

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at km_____

Next service
at the latest
at_____
or, when reached earlier
at km_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Oil change, engine, with filter	☐	☐
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Change gearbox oil	☐	☐
Renewing all spark plugs	☐	☐
Renewing air cleaner insert	☐	☐
Replacing belt for generator	☐	☐
Adjust engine synchronisation	☐	☐
Changing brake fluid, front brakes	☐	☐
Changing brake fluid, rear brakes	☐	☐

Notes

Service confirmations

The table is used to verify maintenance and repair work as well as installed optional accessories and purchased special promotions.

Work performed	at km	Date

Work performed	at km	Date

Appendix

Certificate for Electronic Immobiliser 158

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. ◀

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Details described or illustrated in this booklet may differ from the vehicle's actual specification as purchased, the accessories fitted or the national-market specification. No claims will be entertained as a result of such discrepancies.
Dimensions, weights, fuel consumption and performance data are quoted to the customary tolerances.
The right to modify designs, equipment and accessories is reserved.
Errors and omissions excepted.

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Original rider's manual, printed in Germany.

Important data for refuelling:

Fuel	
Recommended fuel grade	Super Plus, unleaded 98 ROZ/RON 93 AKI
Alternative fuel grade	Super unleaded (slight performance restriction and potentially higher consumption) - Super Plus unleaded (max. 10 % ethanol, E10) 95...98 ROZ/RON 90...93 AKI
Fuel tank capacity	approx. 17.0 l
Fuel reserve	approx. 3.5 l
Tyre pressures	
Tyre pressure, front	2.5 bar, One-up and outlet with passenger, when tyre is cold
Tyre pressure, rear	2.9 bar, One-up and outlet with passenger, when tyre is cold

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

BMW recommends ADVANTEC ORIGINAL BMW ENGINE OIL

Order No.: 01 40 8 403 311
07.2017, 3rd edition, 01