



BMW Motorrad



The Ultimate
Riding Machine

Rider's Manual R nineT

Vehicle data/dealership details

Vehicle data

Model

Vehicle Identification Number

Colour code

Date of first registration

Registration number

Dealership details

Person to contact in Service department

Ms/Mr

Phone number

Dealership address/phone number (company stamp)

Welcome to BMW

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

About this Rider's Manual

Please read this Rider's Manual carefully before starting to use your new BMW. It contains important information on how to operate the controls and how to make the best possible use of all your BMW's technical features. In addition, it contains information on maintenance and care to help you maintain your vehicle's reliability and safety, as well as its value.

Suggestions and criticism

If you have questions concerning your motorcycle, 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 41 8 559 231



Table of Contents

1 General instructions	5	Warnings	23	5 Anti-theft alarm	
Overview	6	4 Operation.....	29	DWA	43
Abbreviations and symbols	6	Ignition switch/steering lock	30	Overview	44
Equipment	7	Electronic immobiliser EWS	31	Activation	44
Technical data	7	Clock.....	31	Alarm function.....	46
Actuality.....	7	Reading	32	Deactivation	47
2 General views	9	Lights	33	Programming.....	48
General view, left side	11	Turn indicators	34	Registration of the remote control	50
General view, right side	13	Hazard warning flashers	34	Synchronising	51
Multifunction switch, left	14	Emergency off switch (kill switch)	35	Battery	52
Multifunction switch, right	15	Clutch	36	6 Riding.....	53
Underneath the seat	16	Brakes	36	Safety instructions	54
Instrument panel	17	Heated handlebar grips	37	Comply with checklist	56
3 Status indicators	19	Mirrors	38	Starting.....	56
Warning and telltale lights	20	Spring preload	38	Running in	58
Multifunction display	21	Damping	39	Brakes	59
Meaning of symbols.....	22	Tyres.....	40	Parking your motorcycle	60
Service-due indicator.....	22	Headlight.....	41	Refuelling	60
Fuel reserve.....	22	Front and rear seats.....	41	Securing motorcycle for transportation	62

7 Engineering details.....	65	10 Care	107	Dimensions	125
Brake system with		Care products	108	Weights	126
BMW Motorrad ABS	66	Washing the vehicle.....	108	Riding specifications	126
8 Maintenance	69	Cleaning easily damaged		Anti-theft alarm.....	126
General instructions	70	components.....	109	Remote control.....	127
Toolkit.....	70	Paint care	109	12 Service	129
Front-wheel stand.....	70	Laying up the motor-		BMW Motorrad Service ...	130
Rear-wheel stand	72	cycle	110	BMW Motorrad Mobility	
Engine oil	73	Protective wax coating	110	services	130
Brake system	74	Restoring motorcycle to		Maintenance work.....	130
Clutch	79	use	110	Maintenance schedule	133
Rims and tyres	79	11 Technical data	111	Running-in check	134
Wheels	80	Troubleshooting chart.....	112	Standard BMW service....	134
Headlight.....	89	Threaded fasteners	113	Confirmation of mainten-	
Lighting	90	Engine	116	ance work	136
Jump-starting	93	Fuel	117	Confirmation of service....	141
Battery	94	Engine oil	118	13 Appendix.....	143
9 Accessories	97	Clutch	118	Certificate for electronic	
General instructions	98	Transmission	119	immobiliser	144
Power sockets	98	Rear-wheel drive	119	14 Index	146
Luggage	99	Running gear.....	120		
Rear-seat frame.....	99	Brakes	121		
Installing rear-seat		Wheels and tyres.....	122		
frame.....	103	Electrics	124		
		Frame	125		

General instructions

Overview	6
Abbreviations and symbols	6
Equipment	7
Technical data	7
Actuality	7

Overview

An important aspect of this Rider's Manual is that it can be used for quick and easy reference. Consulting the extensive index at the end of this Rider's Manual is the fastest way to find information on a particular topic or item. To first read an overview of your motorcycle, please go to chapter 2. All maintenance and servicing work on the motorcycle is documented in Chapter 12. This record of the maintenance work you have had performed on your motorcycle is a precondition for generous treatment of goodwill claims. When the time comes to sell your BMW, please remember to hand over this Rider's Manual; it is an important part of the motorcycle.

Abbreviations and symbols



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



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



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



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



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



Indicates the end of an item of information.

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

EWS Electronic immobiliser.

DWA Anti-theft alarm (Diebstahlwarnanlage).

ABS Anti-lock brake system.

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 de-

scriptions of equipment which you have not ordered. Please note, too, that your motorcycle might not be exactly as illustrated in this manual on account of country-specific differences. If your motorcycle contains equipment that has not been described, its description can be found in a separate manual.

Technical data

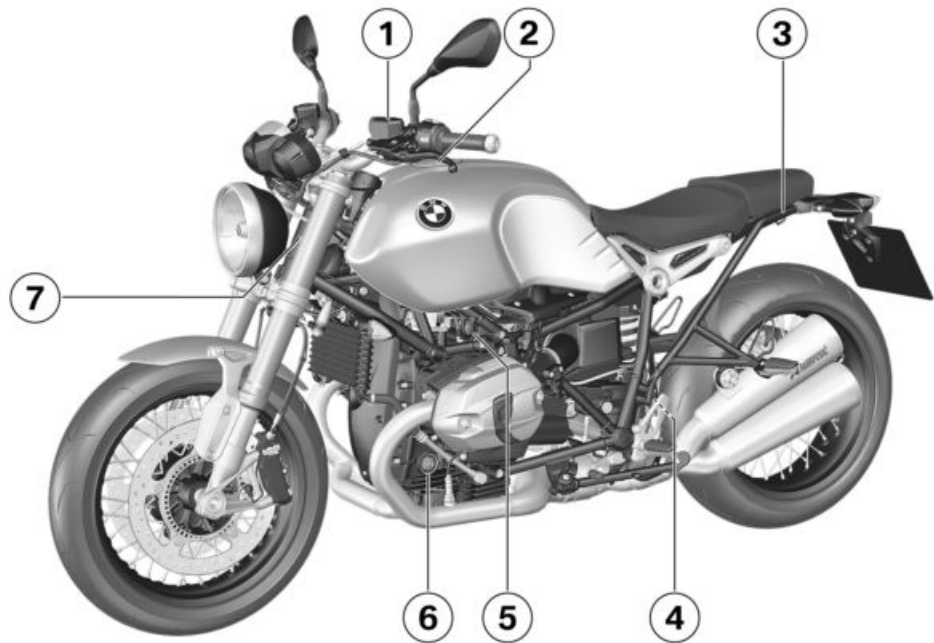
All dimensions, weights and power ratings stated in the Rider's Manual are quoted to the standards and comply with the tolerance requirements of the Deutsches Institut für Normung e.V. (DIN). Versions for individual countries may differ.

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.

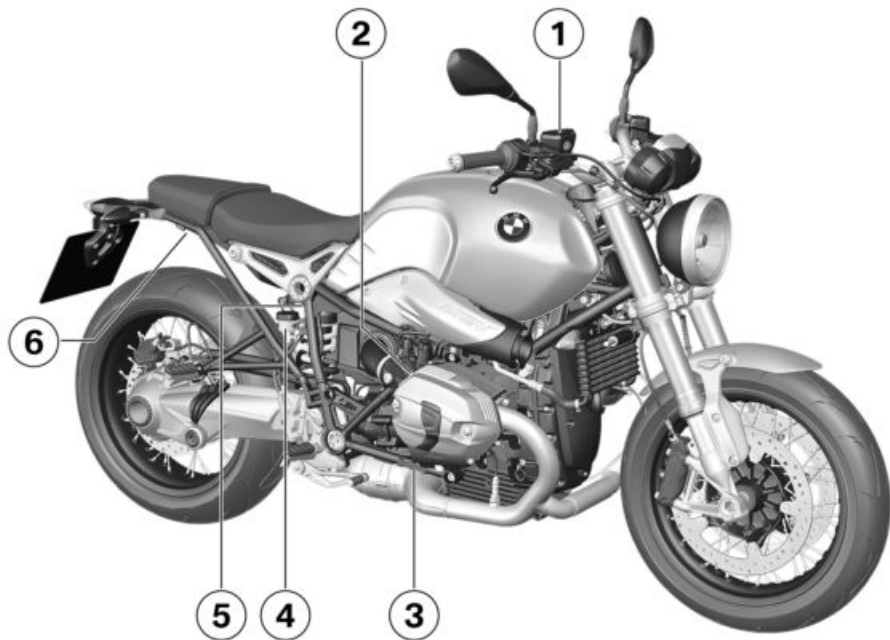
General views

General view, left side	11
General view, right side	13
Multifunction switch, left	14
Multifunction switch, right	15
Underneath the seat	16
Instrument panel	17



General view, left side

- 1 Checking clutch function
( 79)
- 2 Refuelling ( 61)
- 3 Removing rear-seat frame
( 99)
- 4 Adjusting the damping
characteristic for rear
wheel ( 39)
- 5 Power sockets ( 98)
- 6 Checking engine oil level
( 73)
- 7 Type plate (left side, on
steering-head bearing)

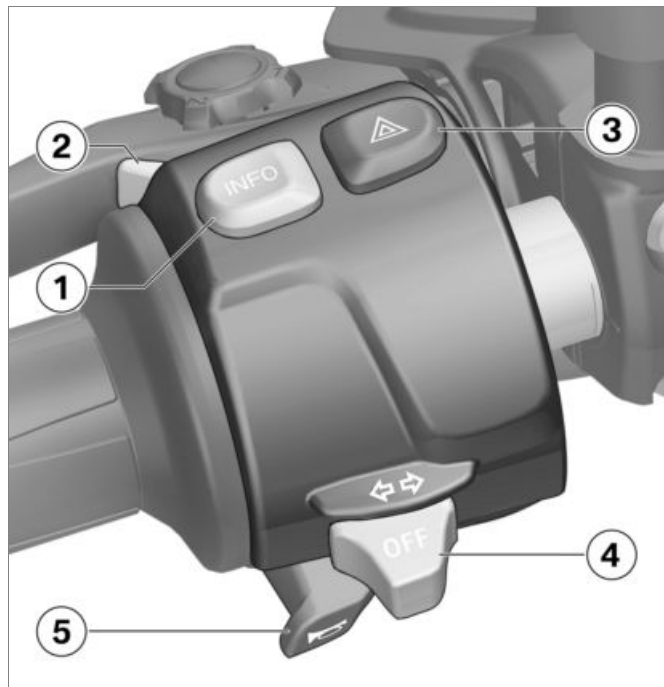


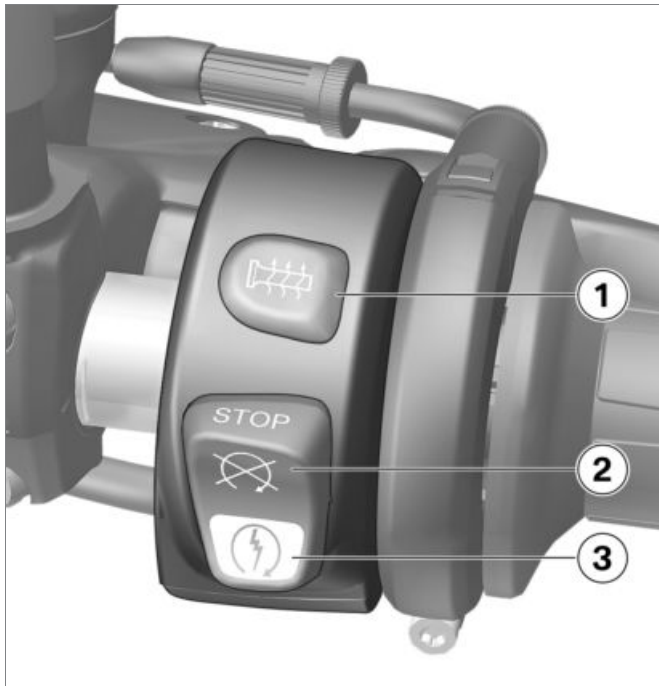
General view, right side

- 1 Checking brake-fluid level, front brakes (▮▮▮▮ 77)
- 2 Topping up the engine oil (▮▮▮▮ 74)
- 3 VIN (front right, low on rear frame)
- 4 Checking the brake-fluid level, rear brakes (▮▮▮▮ 78)
- 5 Adjust spring preload (▮▮▮▮ 39)
- 6 Removing rear seat (▮▮▮▮ 42)

Multifunction switch, left

- 1 Multifunction display (➡ 21)
- 2 High-beam headlight and headlight flasher (➡ 33)
- 3 Hazard warning flashers (➡ 34)
- 4 Turn indicators (➡ 34)
- 5 Horn



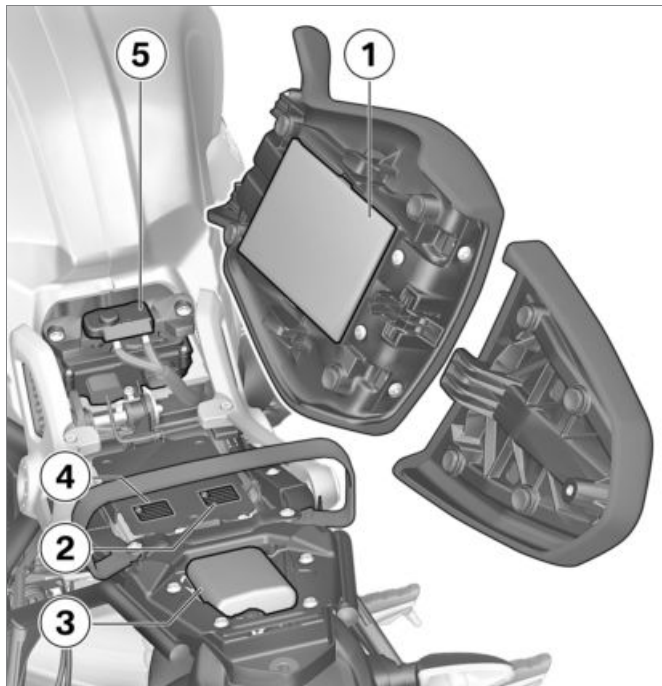


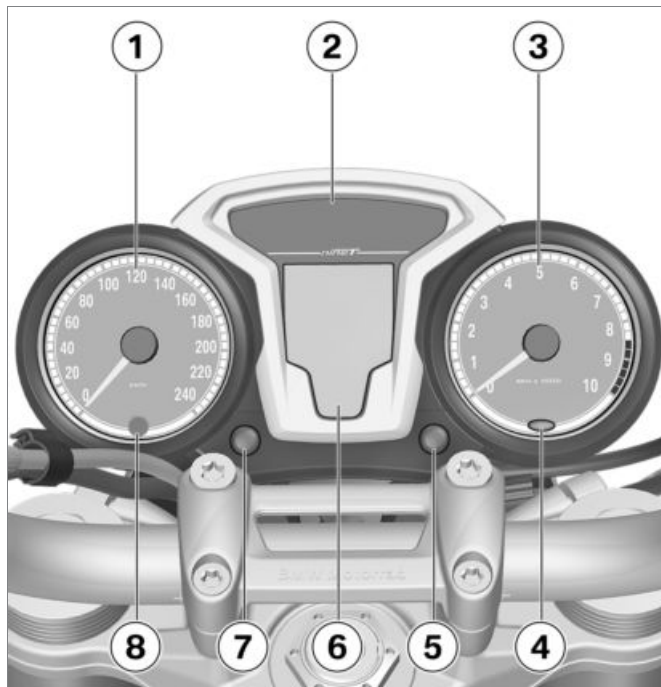
Multifunction switch, right

- 1** – with heated handlebar grips^{OE}
Operating the heated handlebar grips (➡ 37)
- 2** Emergency off switch (kill switch) (➡ 35)
- 3** Starter button (➡ 56)

Underneath the seat

- 1 Rider's Manual
- 2 Payload table
- 3 Toolkit (➡ 70)
- 4 Table of tyre pressures
- 5 Battery-positive connection point (➡ 93)





Instrument panel

- 1** Speedometer
- 2** Warning and telltale lights (➡ 20)
- 3** Rev. counter
- 4** Ambient-light brightness sensor (for adapting the brightness of the instrument lighting)
- 5** Clock (➡ 31)
- 6** Multifunction display (➡ 21)
- 7** Reading (➡ 32)
- 8** Telltale light
– with alarm system (DWA)^{OE}
Anti-theft alarm (DWA)

Status indicators

Warning and telltale lights.....	20
Multifunction display	21
Meaning of symbols	22
Service-due indicator	22
Fuel reserve	22
Warnings	23

Warning and telltale lights

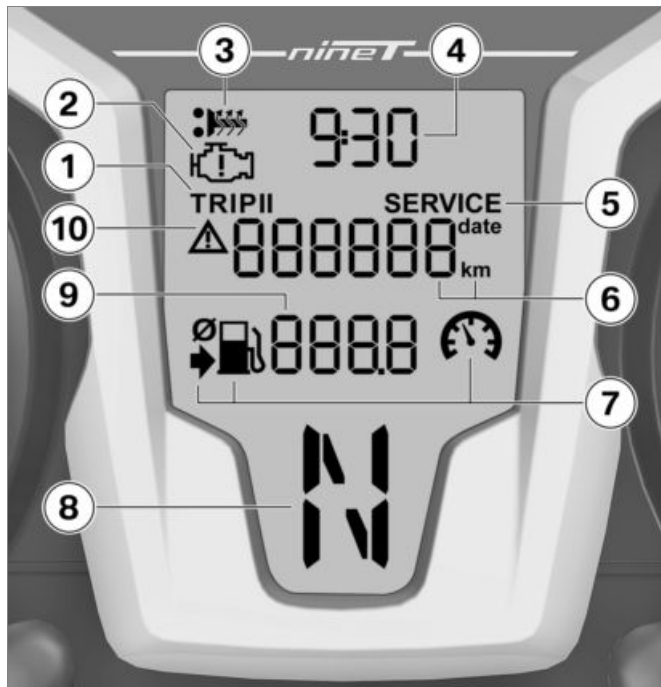
- 1 Turn indicators, left
- 2 General warning light, in combination with warnings in the display (➡ 23)
- 3 Neutral
- 4 High-beam headlight (➡ 33)
- 5 Turn indicators, right
- 6 ABS (➡ 28)
- 7 Warning light for fuel down to reserve (➡ 26)
- 8 Warning light for battery charge current (➡ 27)



NOTICE

The ABS symbol might differ, depending on the specifics of national regulations.◀





Multifunction display

- 1 Trip meter (➡ 32)
- 2 Warning for engine electronics (➡ 26)
- 3 – with heated handlebar grips^{OE}
Operating the heated handlebar grips (➡ 37)
- 4 Clock (➡ 31)
- 5 Service-due indicator (➡ 22)
- 6 Odometer and tripmeters
- 7 Telltale lights (➡ 22)
- 8 Gear indicator; "N" indicates neutral
- 9 Values area
- 10 Warning (➡ 23)

Meaning of symbols



Average consumption



Average speed



Current consumption

Service-due indicator



If the next service is due in less than one month, the date for the next service **1** is shown briefly

after the Pre-Ride Check completes.



If the vehicle covers long distances in the course of the year, under certain circumstances it might be necessary to have it serviced at a date in advance of the forecast due date. If the countdown distance to the early service is within the defined displayable range, this countdown distance **1** appears briefly on the display after the Pre-Ride Check completes.



Maximum countdown distance to next service:

1000 km

100 km (A countdown indicates when the next service will be due.)

Fuel reserve

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



After the fuel warning light has switched on, the range already travelled (reserve trip) is displayed automatically.

The distance that can still be travelled using the reserve volume depends on the style of driving (usage) and the amount of fuel remaining at the time the light came on (see explanation above).

The odometer for the fuel reserve is reset when the amount of fuel after refuelling is greater than the reserve volume.

Warnings

Mode of presentation

Warnings are indicated by the corresponding warning lights.



Warnings that do not have warning lights of their own are indicated by 'general' warning light **1** showing in combination with a text warning or a warning symbol in the multifunction display. The 'General' warning light shows red or yellow, depending on the urgency of the warning.

A reading in top values area **2** that constitutes a warning is accompanied by warning triangle **3**. These warnings appear in alternation with the odometer readings (➡ 32).

The status of the 'General' warning light matches the most urgent warning.

The possible warnings are listed on the next pages.

Warnings, overview

Warning and telltale lights

Warning symbols in the display

Meaning

	Lights up yellow	 + "EWS" appears on the display	Electronic immobiliser active (→ 26)
	Lights up		Fuel down to reserve (→ 26)
	Lights up yellow	 Appears on the display	Engine in emergency-operation mode (→ 26)
	Lights up		Insufficient battery charge current (→ 27)
	Lights up yellow	 + "LAMP" appears on the display	Bulb faulty (→ 27)
	Lights up yellow	dWA appears on the display	Anti-theft alarm battery flat (→ 27)
	Flashes		ABS self-diagnosis not completed (→ 28)

Warning and telltale lights

Warning symbols in the display

Meaning



Lights up

ABS fault (→ 28)

Electronic immobiliser active



General warning light shows yellow.



+ "EWS" 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.

Fuel down to reserve



Warning light for fuel down to reserve shows.



WARNING

Irregular engine operation or engine shutdown due to lack of fuel.

Risk of accident. Damage to catalytic converter.

- Do not run the fuel tank dry. ◀

Possible cause:

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



Reserve fuel

approx. 3 l

- Refuelling (►► 61).

Engine in emergency-operation mode



General warning light shows yellow.



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 engine performance might not be available.
- Have the fault rectified as quickly as possible by a specialist workshop, preferably

an authorised BMW Motorrad dealer.

Insufficient battery charge current



Warning light for battery shows.



WARNING

Non-availability of various systems such as lights, engine or ABS on account of discharged battery.

Risk of accident

- Do not continue your journey.◀

Possible cause:

Alternator or alternator drive belt defective

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

Bulb faulty



General warning light shows yellow.



+ "LAMP" appears on the display.



WARNING

Failure of lights on the vehicle adds to possibility of other road users overlooking the vehicle.

Safety risk

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

Possible cause:

Bulb faulty

- Visually inspect to ascertain which bulb is defective.
- Replacing bulbs for low-beam and high-beam headlight (► 90).

- Replacing bulb for parking light (► 91).
- Replacing bulbs for front and rear turn indicators (► 92).
- Replacing LED rear light (► 93).

Anti-theft alarm battery flat

– with alarm system (DWA)^{OE}



General warning light shows yellow.

dWA The text warning dWA appears, accompanied by a warning-triangle symbol to indicate that this is a warning.



NOTICE

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

Possible cause:

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

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

ABS self-diagnosis not completed



ABS warning light flashes.

Possible cause:

The ABS function is not available, because self-diagnosis did not complete. The motorcycle has to move forward a few metres for the wheel sensors to be tested.

- Pull away slowly. Bear in mind that the ABS function is not

available until self-diagnosis has completed.

ABS fault



ABS warning light shows.

Possible cause:

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

- You can continue to ride the vehicle, but make due provision for the fact that the ABS function is not available. Bear in mind the more detailed information on situations that can lead to an ABS fault (► 67).
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Operation

Ignition switch/steering lock	30
Electronic immobiliser EWS.....	31
Clock	31
Reading.....	32
Lights.....	33
Turn indicators.....	34
Hazard warning flashers.....	34
Emergency off switch (kill switch)	35
Clutch	36
Brakes	36
Heated handlebar grips	37
Mirrors	38
Spring preload	38
Damping	39

Tyres	40
Headlight	41
Front and rear seats	41

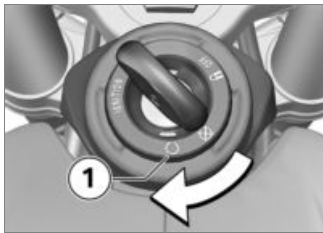
Ignition switch/steering lock

Keys

You receive 2 ignition keys and a special key for removing the rear seat (► 42).

Please consult the information on the electronic immobiliser "EWS" if a key is lost or mislaid (► 31). Ignition switch/steering lock and the fuel filler cap lock are operated with the same key.

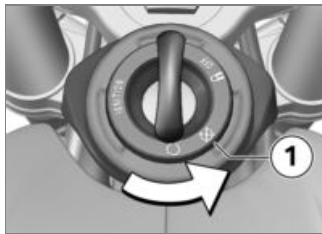
Switching on ignition



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

- » Parking lights and all function circuits switched on.
- » Engine can be started.
- » Pre-ride check is performed. (► 57)
- » ABS self-diagnosis is performed. (► 57)

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.

Lock the handlebars



ATTENTION

Handlebars turned in wrong direction when motorcycle propped on side stand.

Risk of damage to parts if vehicle topples.

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



- Turn the ignition key to position **1**, while moving the handlebars slightly.
- » Ignition, lights and all function circuits switched off.
- » Handlebars locked.
- » Ignition key can be removed.

Electronic immobiliser EWS

The electronic design of the motorbike 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 motorbike 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.

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 (🔑➡ 30).



- Press and hold down button **1** until the hours number **2** flashes.
- Repeatedly press button **1** until the hours number is correct.
- Press and hold down button **1** until the minutes number **3** flashes.
- Repeatedly press button **1** until the minutes number is correct.
- Press and hold button **1** until the minutes number stops flashing.
- » This completes the process.

Reading

Select display

- Switching on ignition (III 30).



- Press button **1** to select the reading in top section of display **2**.

The following values can be displayed:

- Total kilometres (shown)
- Tripmeter 1 (Trip I)
- Tripmeter 2 (Trip II)

– Warnings, if applicable

Resetting tripmeter

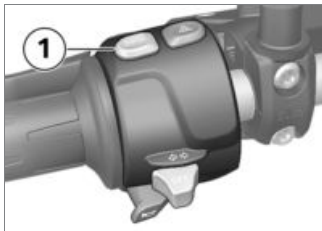
- Switching on ignition (III 30).



- Press and hold down button **1** until the tripmeter reading is reset.

Resetting the average values

- Switching on ignition (III 30).



- Press and hold down button **1** until the value shown is reset.

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 headlights switch 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. ◀

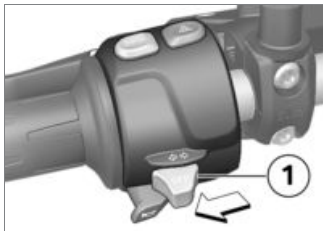
High-beam headlight and headlight flasher



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

Parking lights

- Switching off ignition (III → 30).

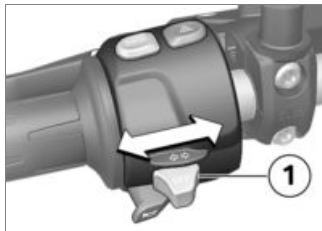


- Immediately after switching off the ignition, push button **1** to the left and hold it in this position until the parking lights come on.
- Switch the ignition on and off again to switch off the parking lights.

Turn indicators

Operating the turn indicators

- Switching on ignition (➡ 30).



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



Turn-indicator cancellation

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

Hazard warning flashers

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. ◀



NOTICE

If you press a turn-indicator button with the hazard warning flashers switched on, the turn-indicator function is activated instead of the hazard warning flashers, and remains active until you release the button. The hazard warning flashers recommence flashing as soon as the button is released.◀

- Switching on ignition (➡ 30).



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

- » Ignition can be switched off.
- Press button **1** again to switch off the hazard warning flashers.

Emergency off switch (kill switch)



- 1** Emergency off switch (kill switch)



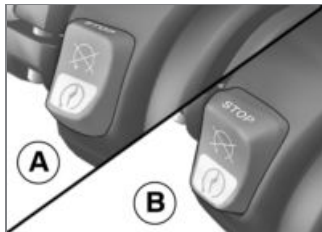
WARNING

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.◀

Clutch

Adjusting the clutch lever



WARNING

Changed position of the clutch fluid reservoir.

Air in clutch system.

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

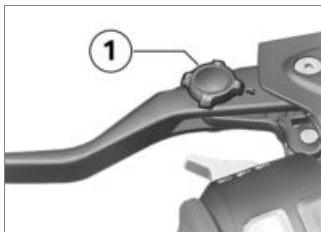


WARNING

Adjusting the clutch lever while riding.

Risk of accident

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



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



NOTICE

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

- » Four settings are available:
- **Position 1:** narrowest span between handlebar grip and clutch lever.
 - **Position 4:** widest span between handlebar grip and clutch lever.

Brakes

Adjusting the front brake lever



WARNING

Changed position of the brake fluid reservoir.

Air in the brake system.

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

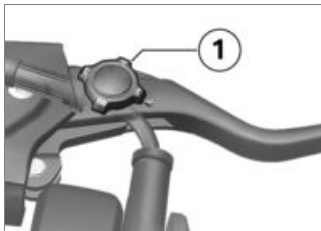


WARNING

Adjusting the brake lever while riding.

Risk of accident

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



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



NOTICE

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

- » Four settings are available:
- **Position 1:** narrowest span between handlebar grip and handbrake lever.
 - **Position 4:** widest span between handlebar grip and handbrake lever.

Heated handlebar grips

– with heated handlebar grips^{OE}

Operating the heated handlebar grips



NOTICE

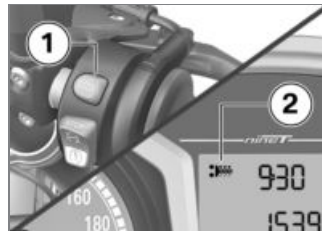
The heating in the heated handlebar grips can be activated only when the engine is running.◀



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 (▶▶ 56).



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

The handlebar grips have two-stage heating.



50 % heating power



100 % 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.

- In order to switch off the heated handlebar grips, repeatedly press button **1** until the heated handlebar grip symbol **2** is no longer shown on the display.

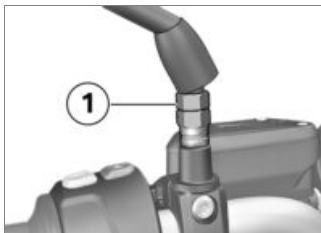
Mirrors

Adjusting mirrors



- Turn the mirror to the correct 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 (lock nut) to adapter

22 Nm

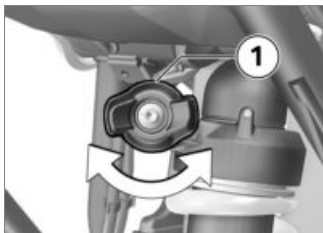
- Push the protective cap over the threaded fastener.

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 spring preload for rear wheel



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

WARNING

Spring preload setting and spring-strut damping setting not matched.

Impaired handling.

- Adjust spring-strut damping to suit spring preload.◀
- If you want to increase spring preload, turn knob **1** clockwise.

- If you want to reduce spring preload, turn knob **1** counter-clockwise.



NOTICE

See the section entitled "Technical data - suspension" for a recommendation on how to set up the suspension.◀

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

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



CAUTION

Adjusting spring-strut damping while silencer is hot.

Risk of burn injury

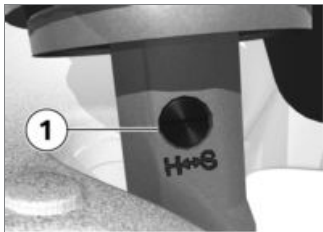
- Allow the silencer to cool.◀

⚠ CAUTION

Working with heated/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** counter-clockwise.



NOTICE

See the section entitled "Technical data - suspension" for a recommendation on how to set up the suspension.◀

Tyres

Checking tyre pressure



WARNING

Incorrect tyre pressure.

Impairment of the motorcycle's handling characteristics. Shorter useful tyre life.

- Always check that the tyre pressures are correct.◀



WARNING

Tendency of valve inserts installed vertically top open

by themselves at high riding speeds.

Sudden loss of tyre pressure.

- Install valve caps fitted with rubber sealing rings and tighten firmly.◀
- Make sure the ground is level and firm and place the motorcycle on its stand.
- Check tyre pressures against the data below.



Tyre pressure, front

2.5 bar (tyre cold)



Tyre pressure, rear

2.5 bar (one-up, tyre cold)

2.9 bar (two-up, tyre cold)

If tyre pressure is incorrect:

- Correct tyre pressure.

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.



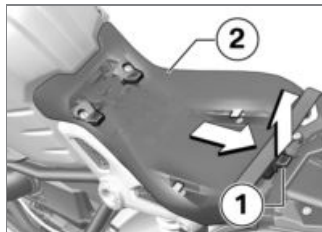
NOTICE

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

Front and rear seats

Removing front seat

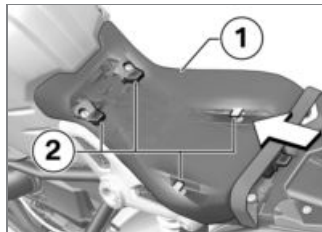
- Remove the rear seat (► 42).



- Pull latch **1** up.

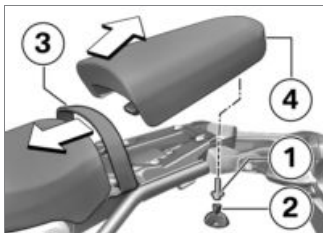
- Pull front seat **2** to the rear and remove.

Installing front seat



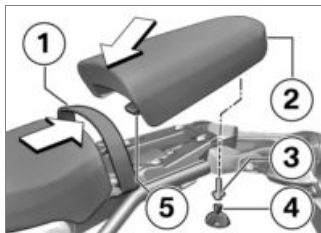
- Engage front seat **1** in the lugs **arrows**.
- Push down on front seat **1**, applying pressure to the rear of the seat.
 - » The front seat engages with an audible click.
- Install the rear seat (► 42).

Removing rear seat



- Remove screw **1** with special key **2** for the seat.
- Pull grab strap **3** toward the front seat and work rear seat **4** to the rear to remove.

Install the rear seat



- Insert rear seat **2** into the rear frame, making sure that lug **5** of the rear seat is seated in the frame.
- Tighten screw **3** with special key **4** for the seat until it is hand-tight.
- Pull grab strap **1** over the rear seat.

Anti-theft alarm DWA

Overview	44
Activation	44
Alarm function	46
Deactivation	47
Programming	48
Registration of the remote control	50
Synchronising.....	51
Battery.....	52

Overview

– with alarm system (DWA)^{OE}

General information about the anti-theft alarm (DWA)

Any attempt to move the motorcycle, change its position, start it without an authorised key or disconnect the starter battery will trigger the alarm. The sensitivity of the system is parameterised so that slight vibrations will not trigger the alarm. Once the system has been activated, any attempt to tamper with the motorcycle is indicated acoustically by the siren and visually by all four turn indicators flashing in unison. You can change some of your DWA alarm system's parameters to suit your personal preferences.

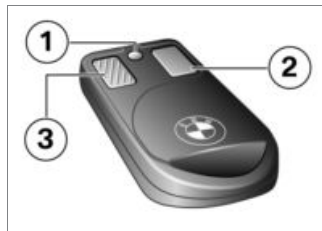
Conserving power in the vehicle's starter battery

In order to conserve the power of the starter battery and ensure that the motorcycle will start, the DWA anti-theft alarm automatically switches off the alarm function a few days after being activated. In most cases, however, the system will remain active for at least 10 days.

Radio interference

Radio systems or devices transmitting on the same frequency as the remote control of the DWA anti-theft alarm can interfere with operation of the system. If problems of this nature occur, point the remote control toward the motorcycle from another direction.

Controls



- 1 LED (➡ 17)
- 2 Right button (➡ 46)
- 3 Left button (ribbed) (➡ 45)

Activation

– with alarm system (DWA)^{OE}

Activation with motion sensor



- The alarm function is activated
- by pressing button **1** on the remote control once, or
 - by switching off the ignition (if programmed); when the ignition is switched off 30 seconds elapse before the start of the activation phase

Activation is confirmed

- by the turn indicators flashing twice and
- by the alarm tone sounding twice.

If you want to activate the alarm function more than one minute after switching off the ignition, you must press button **1** for longer than one second. If it is not armed within approximately one hour, the DWA anti-theft alarm shuts down in order not to draw power unnecessarily from the battery. If you want to activate the alarm function after the anti-theft alarm has shut down in this way, you have to switch the ignition on and then off again.

Activation phase

The anti-theft alarm needs 15 seconds to achieve fully active status. No alarm is triggered during this time.

Conserving battery power



If you want to activate the alarm function more than one minute after switching off the ignition, you must press button **1** for longer than one second. If it remains deactivated for approximately one hour, the DWA anti-theft alarm shuts down in order not to draw power unnecessarily from the battery. If you want to activate the alarm function after the anti-theft alarm has shut down in this way, you have to switch the ignition on and then off again.

Motion sensor when motorcycle is to be transported

If you want to transport your motorcycle by train or on a trailer, for example, it is advisable to switch off the motion sensor. If the motion sensor is not switched off the severe movements occurring in transit could trigger the alarm.

Deactivating motion sensor



- Press button **1** on the remote control a second time during the activation phase.
 - » Turn indicators flash three times.
 - » Alarm tone sounds three times.
 - » Motion sensor is deactivated.

Alarm function

- with alarm system (DWA)^{OE}

Alarm triggers

An alarm can be triggered by:

- the motion sensor
- attempt to switch on the ignition with an unauthorised key
- disconnection of the anti-theft alarm (DWA) from the vehicle's battery (DWA internal battery in the anti-theft alarm provides power).

Alarm



An alarm lasts for 26 seconds. The system is active again another 12 seconds later. You can interrupt an alarm by pressing button **1** on the remote control.

This function does not change the status of the anti-theft alarm.

While an alarm is in progress an alarm tone sounds and the turn indicators flash. You can program the type of alarm tone.

Reason for an alarm

Once you have deactivated the alarm function, the DWA anti-theft alarm status indicator is active for a period of one minute to show you reasons for alarms, if any, that were triggered in your absence:

- Flashes 1x: Motion sensor; motorcycle was rocked forward/back
- Flashes 2x: Motion sensor; motorcycle was rocked to the side
- Flashes 3x: Ignition switched on with unauthorised key

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

Information on alarm triggering

If an alarm was triggered after the last activation of the alarm function, the rider is notified accordingly by an alarm tone sounding once when the ignition is switched on.

Deactivation

- with alarm system (DWA)^{OE}

Deactivating alarm function



- Press button **1** on the remote control once **or** switch on the ignition with an authorised key.



NOTICE

Note that you can deactivate the alarm function with the ignition key only when the kill switch is in the RUN position. ◀



NOTICE

If the alarm function is deactivated by the remote control and

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

- » Turn indicators flash once.
- » Alarm tone sounds once (if programmed).
- » Alarm function is deactivated.

Conserving battery power

Approximately one hour after the alarm is armed, the receiver for the remote control in the DWA anti-theft alarm shuts down in order not to draw power unnecessarily from the battery. If you want to deactivate the alarm function after the receiver has shut down in this way, you have to switch the ignition on.

Programming

- with alarm system (DWA)^{OE}

Programming options

You can customise the following parameters of your anti-theft alarm:

- Confirmation alarm tone after activation/deactivation of the anti-theft alarm (DWA) in addition to visual confirmation by turn indicators flashing
- Rising and falling or intermittent alarm tone
- Automatic activation of the alarm function after the ignition is switched off

Default settings

The anti-theft alarm ships with the following default settings:

- Confirmation alarm tone after activation/deactivation of the anti-theft alarm (DWA): No
- Alarm tone: Intermittent

- Automatic activation of the alarm function after the ignition is switched off: No

Programming anti-theft alarm (DWA)



- Deactivate the alarm function.
- Switch on the ignition.
- Press button **1** three times.
 - » Acknowledgement tone sounds once.
- Within ten seconds, switch off the ignition.
- Press button **2** three times.
 - » Acknowledgement tone sounds once.

- Within ten seconds, switch on the ignition.
- » Acknowledgement tone sounds three times.
- » The programming function is active.

Programming is a four-step process, although no function is allocated to step 2. The number of times the **anti-theft alarm** status-indicator light on the vehicle flashes corresponds to the active programming step. An alarm tone sounds by way of confirmation when button **1** is pressed, and an acknowledgement tone sounds when button **2** is pressed.

- **Step 1:** Do you want a confirmation tone to sound after activation/deactivation of the DWA anti-theft alarm?

Yes:

- Press button **1**.

No:

- Press button **2**.

- **Step 2:**

No function allocated to this step.

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

- **Step 3:** Which alarm tone would you like the alarm to sound?

Rising and falling:

- Press button **1**.

Intermittent:

- Press button **2**.

- **Step 4:** Do you want to have the alarm function activated automatically when you switch off the ignition?

Yes:

- Press button **1**.

No:

- Press button **2**.

Under what circumstances is programming aborted?

Programming is aborted

- if the ignition is switched off before completion of the last step in the programming sequence.
- **or** automatically if more than 30 seconds are allowed to elapse between any two consecutive steps in the programming routine.

The new settings are not saved if programming is aborted.

Saving programming

Programming is saved

- if the ignition is switched off after completion of the last step in the programming sequence.
- **or** automatically 30 seconds after completion of the last

step in the programming routine.

The DWA status indicator light stops flashing and four acknowledgement tones sound.

Registration of the remote control

– with alarm system (DWA)^{OE}

When is it necessary to register a remote control?

If you want to register an additional remote control or register a remote control as a replacement for one that has been mislaid, you must always register all the remote control units with the DWA anti-theft alarm. You can register a maximum of 4 remote control units.

Registering remote control



- Deactivate the alarm function.
- Switch on the ignition.
- Press button **2** three times.
- » Acknowledgement tone sounds once.
- Within ten seconds, switch off the ignition.
- Press button **2** three times.
- » Acknowledgement tone sounds once.
- Within ten seconds, switch on the ignition.

» Acknowledgement tone sounds twice.

You can now register a maximum of 4 remote control units with the DWA anti-theft alarm. Registration is a three-step process and has to be repeated for each remote control unit.

- Press and hold down button **1** and button **2**.
- » LED flashes for ten seconds.
- As soon as the LED goes out, release button **1** and button **2**.
- » LED lights up.
- Press button **1** or button **2**.
- » Alarm tone sounds once.
- » LED goes out.
- » Remote control has been registered.
- Repeat this three-step procedure for each additional remote control.

Termination of registration

Registration is terminated when

- 4 remote control units have been registered
- the ignition is switched off
- 30 seconds elapse without a button being pressed after the ignition has been switched off
- 30 seconds elapse without a button being pressed after a remote control unit has been registered

When registration terminates the LED flashes and the acknowledgement tone sounds three times.

Synchronising

- with alarm system (DWA)^{OE}

When is it necessary to synchronise the remote control?

The remote control has to be synchronised if the buttons of the remote control have been pressed more than 256 times outside the receiver's range. Once this limit has been reached, the receiver on the motorcycle will no longer react to the signals from the remote control.

Synchronising remote control



- Press and hold down button **1** and button **2**.
 - » LED flashes for ten seconds.
- As soon as the LED goes out, release button **1** and button **2**.
 - » LED lights up.
- Press button **1** or button **2**.
 - » LED goes out.
- Remote control has been synchronised.

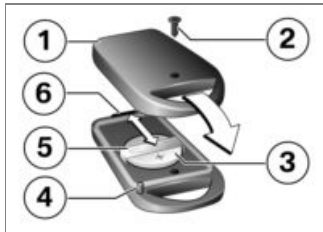
Battery

– with alarm system (DWA)^{OE}

When does the battery have to be changed?

The battery in the remote control is due to be changed after approximately 2 - 3 years. You can tell that the battery is weak if the LED does not light up or lights up only briefly when a button is pressed.

Changing battery



- Remove screw **2** and remove bottom part of housing **1**.

- Slide old battery **5** forward from under retainer **3**.



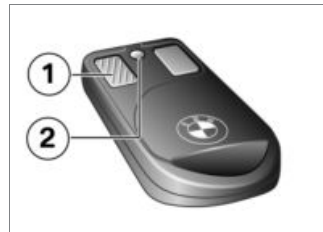
ATTENTION

Batteries unsuitable or not inserted in compliance with correct procedure.

Component damage

- Use only the specified type of battery (see "Technical Data").
- When inserting the battery, always make sure polarity is correct. ◀
- Slip the new battery into position, making sure that the positive terminal of the battery is facing up.
- Position the bottom part of the housing at projection **6** of the front edge and close the housing, noting two guide pins **4**.
- Install screw **2**.
- » The LED on the remote control lights up, indicating that the

remote control has to be synchronised.



- To synchronise the remote control, make sure that it is within range of the receiver and press button **1** twice.
 - » LED **2** starts flashing and then goes out after a few seconds.
 - » The remote control is again ready for use.

Riding

Safety instructions	54
Comply with checklist.....	56
Starting	56
Running in	58
Brakes	59
Parking your motorcycle	60
Refuelling	60
Securing motorcycle for transportation	62

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.

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 rucksack^{OA}
- Note the maximum permissible payload of the tank rucksack.



Payload of tank rucksack

≤5 kg◀

- with rear softbag^{OA}
- Note the maximum payload of the rear softbag.



Payload of rear softbag

max 5 kg◀

Speed

If you ride at high speed, always bear in mind that various boundary conditions can adversely affect the handling of your motorcycle, 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 rucksack 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, the motorcycle could catch 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. Damage due to tampering is not covered by the warranty.

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

Comply with checklist

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

Always before riding off:

- Operation of the brake system
- Operation of the lights and signalling equipment
- Checking clutch function (▮▮▮ 79).
- Check the tyre tread depth (▮▮▮ 79).
- Cases correctly installed and luggage secured

Every 3rd refuelling stop:

- Adjusting spring preload for rear wheel (▮▮▮ 39).
- Adjusting the damping characteristic for rear wheel (▮▮▮ 39).

- Checking engine oil level (▮▮▮ 73).
- Checking front brake pad thickness (▮▮▮ 75).
- Checking rear brake pad thickness (▮▮▮ 75).
- Checking brake-fluid level, front brakes (▮▮▮ 77).
- Checking the brake-fluid level, rear brakes (▮▮▮ 78).

Starting

Start engine

- Switching on ignition (▮▮▮ 30).
 - » Pre-ride check is performed (▮▮▮ 57).
 - » ABS self-diagnosis is performed (▮▮▮ 57).
- 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. (▶▶ 112)

Pre-ride check

The instrument panel runs a test of the instruments and the telltale and warning lights when the ignition is switched on: this is the so-called "Pre-Ride-Check". The test is aborted if you start the engine before it completes.

Phase 1

The rev. counter and speedometer needles both swing to the limit values on their scales. At the same time, all the warning lights and telltale lights are switched on in succession.

Phase 2

- » The 'General' warning light changes from yellow to red.

Phase 3

The rev. counter and speedometer needles both swing to the starting position on their scales. At the same time, all the warning lights and telltale lights switched on in the initial phase are switched off in reverse sequence.

If a needle did not move or if a warning light or telltale light did not show:

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

ABS self-diagnosis

BMW Motorrad ABS performs self-diagnosis to ensure its operability. Self-diagnosis is performed automatically when you switch on the ignition. The motorcycle has to move forward a few metres for the wheel-speed sensors to be tested.

Phase 1

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



ABS warning light flashes.

Phase 2

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



ABS warning light flashes.

ABS self-diagnosis completed

The ABS warning light goes out.

- Check all the warning and tell-tale lights.

After the ABS self-diagnosis completes, an indicator showing an ABS fault will appear.

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

Running in Engine

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

- Try to do most of your riding during this initial period on twisting, fairly hilly roads.
- Comply with the rpm limits for running in.

 Running-in speeds
<5500 min ⁻¹ (Odometer reading 0...200 km)
<6500 min ⁻¹ (Odometer reading 200...400 km)
<7500 min ⁻¹ (Odometer reading 400...600 km)
maximum engine rpm for short bursts (Odometer reading 600...900 km)

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



WARNING

New brake pads.

Longer stopping distance. Risk of accident.

- Apply the brakes in good time. ◀

Tyres

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

WARNING

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

Risk of accident

- Ride carefully and avoid extremely sharp inclines.◀

Brakes

How can stopping distance be minimised?

Each time the brakes are applied, a load distribution shift takes place with the load shifting forward from the rear to the front wheel. The sharper the motorcycle decelerates, the more load is shifted to the front wheel. The higher the wheel load, the more braking force can be transmitted without the wheel locking.

To optimise stopping distance, apply the front brakes rapidly and keep on increasing the force you

apply to the brake lever. This makes the best possible use of the dynamic increase in load at the front wheel. Remember to pull the clutch at the same time. In the extreme sudden-stop braking situations that are trained so frequently braking force is applied as rapidly as possible and with the rider's full force applied to the brake levers; under these circumstances the dynamic shift in load distribution cannot keep pace with the increase in deceleration and the tyres cannot transmit the full braking force to the surface of the road. BMW Motorrad ABS prevents the front wheel from locking up.

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****Moisture and dirt.**

Diminished braking effect.

- 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**

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

**ATTENTION****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

Premium plus unleaded (max. 10 % ethanol, E10)
98 ROZ/RON
91 AKI



Alternative fuel grade

Premium unleaded (slight power restriction and possibly higher fuel consumption) (max. 10 % ethanol, E10)
95 ROZ/RON
89 AKI

Refuelling



WARNING

Fuel is highly flammable.

Risk of fire and explosion.

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



WARNING

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

Risk of falling

- Do not overfill the fuel tank.◀

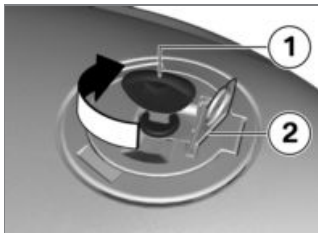


ATTENTION

Fuel attacks plastic surfaces.

Surfaces become unsightly or dull.

- Clean plastic parts immediately after contact with fuel.◀
- Make sure the ground is level and firm and place the motor-cycle on its stand.



- Open the protective cap **2**.
- Use the ignition key to unlock fuel filler cap **1** by turning

it clockwise, and flip the cap open.



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



NOTICE

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

level is down to reserve will not be switched off.◀



NOTICE

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



Usable fuel capacity

approx. 18 l



Reserve fuel

approx. 3 l

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

Securing motorcycle for transportation

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



ATTENTION

Vehicle topples to side when being lifted on to stand.

Risk of damage to parts if vehicle topples.

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



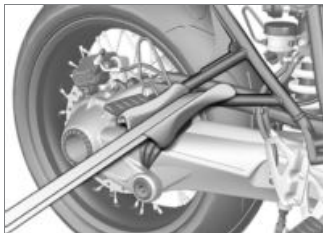
ATTENTION

Trapping of components.

Component damage

- Do not trap components such as brake lines or cable legs.◀

- At the front, secure the straps to the bottom fork bridge on both sides.



- At the rear, secure the straps to the rear footrests on both sides and tighten the straps.
- Tighten all the straps uniformly; the motorcycle's suspension should be compressed firmly at front and rear.

Engineering details

Brake system with BMW Motorrad

ABS 66

Brake system with BMW Motorrad 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 braking pressure to the extent that braking 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.

Exceptional riding conditions can also lead to a fault message being issued:

- Riding for a lengthy period with the front wheel lifted off the ground (wheelie).
- Rear wheel rotating with the vehicle held stationary by applying the front 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 braking 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.◀

Maintenance

General instructions.....	70
Toolkit	70
Front-wheel stand	70
Rear-wheel stand	72
Engine oil	73
Brake system	74
Clutch	79
Rims and tyres.....	79
Wheels	80
Headlight	89
Lighting.....	90
Jump-starting.....	93
Battery.....	94

General instructions

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

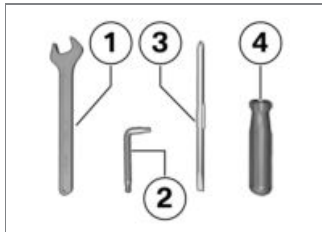
Special tightening torques are listed as applicable. The tightening torques for the threaded fasteners on your vehicle are listed in the section entitled "Technical data".

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

Standard toolkit



- 1** Open-ended spanner
Width across flats 14
– Adjusting mirror arm (► 38).
- 2** Torx wrench, T40
– Adjusting headlight
- 3** Reversible-blade screwdriver with star-head and plain tips
– Adjusting the damping characteristic for rear wheel (► 39).

- 3** – Replacing bulbs for low-beam and high-beam headlight (► 90).
– Replacing bulb for parking light (► 91).
– Replacing bulbs for front and rear turn indicators (► 92).
- 4** Screwdriver handle
– Topping up the engine oil (► 74).
– Use with screwdriver insert.

Front-wheel stand

Install the front-wheel stand



ATTENTION

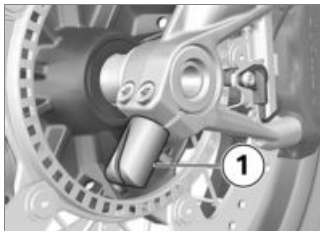
Vehicle supported only on a front-wheel stand and its rear wheel.

Risk of damage to parts if vehicle topples.

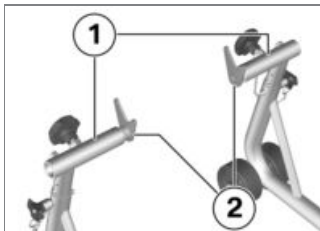
- First prop the vehicle on the rear-wheel stand, then lift it with the front-wheel stand.◀
- Place the motorcycle on a front-wheel stand; BMW Motorrad recommends the BMW Motorrad front-wheel stand.
- Install the rear-wheel stand (➡ 72).



- Use the basic stand with the adapters. The basic stand and its accessory components are available from your authorised BMW Motorrad dealer.

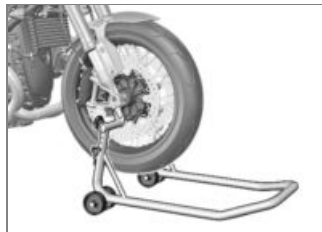


- Insert adapter pins **1** into the front suspension on left and right.



- Turn brackets **1** with long ends facing inwards.

- Adjust adapters **2** to the width of the pins inserted in the front suspension.
- Set the height of the front-wheel stand to raise the front wheel far enough off the ground to turn freely.

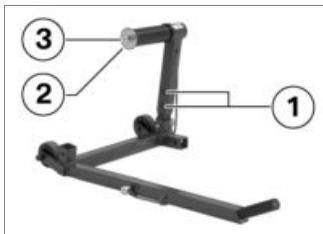


- Engage the front-wheel stand in the front suspension and apply even pressure to push it down to the ground.

Rear-wheel stand

Install the rear-wheel stand

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

- Remove retaining disc **2**. To do so, press release button **3**.



- 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

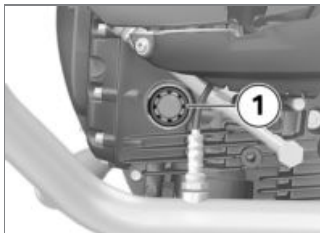
The oil level varies with the temperature of the oil. The higher the temperature, the higher the level of oil in the sump.

Misinterpretation of the oil level

- 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.

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.◀



- 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:

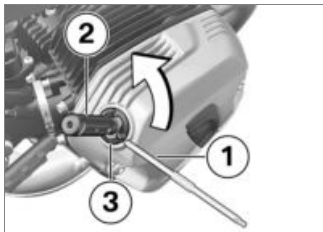
- Topping up the engine oil (► 74).

If the oil level is above the MAX mark:

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

Topping up the engine oil

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



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



ATTENTION

Not enough 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 (→ 73).
- Install cap **3** of the oil filler neck.

Brake system

Checking function of brakes

- Pull the front brake lever.

» The pressure point must be clearly perceptible.

- Press the footbrake lever.

» The pressure point must be clearly perceptible.

If pressure points are not clearly perceptible:



ATTENTION

Work on brake system not in compliance with correct procedure.

Risk to operational reliability of the brake system.

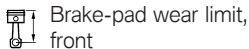
- Have all work on the brake system undertaken by trained and qualified specialists. ◀
- Have the brakes checked by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Checking front brake pad thickness

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



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



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

If the wear indicating marks are no longer clearly visible:



WARNING

Brake-pad thickness less than permissible minimum.

Diminished braking effect. Damage to the brakes.

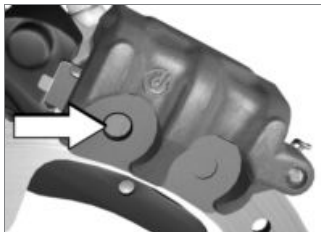
- In order to ensure the dependability of the brake system, do not permit the brake pads to wear past the minimum permissible thickness.◀
- Have the brake pads replaced by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Checking rear brake pad thickness

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



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



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.)

If the brake disc is visible:



WARNING

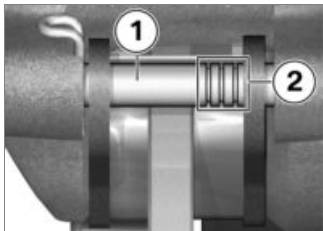
Brake-pad thickness less than permissible minimum.

Diminished braking effect. Damage to the brakes.

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

Brake-pad wear

The rear brake has a brake-pad wear indicator.



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

How to interpret the marks:

- 3 rings visible: Brake-pad thickness is at least 75 %
- 2 rings visible: Brake-pad thickness is at least 50 %
- 1 ring visible: Brake-pad thickness is at least 25 %
- No rings visible: Brake pads worn to wear limit; check as described above

Checking brake-fluid level, front brakes

⚠ WARNING

Not enough brake fluid in brake fluid reservoir.

Considerably reduced braking power due to air in the brake system.

- Check the brake-fluid level at regular intervals.◀
- Make sure the ground is level and firm and place the motorcycle on its stand.
- Brake-fluid reservoir horizontal, motorcycle upright.



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



NOTICE

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



Brake fluid level, front

Brake fluid, DOT4

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

If the brake fluid level drops below the permitted level:

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

an authorised BMW Motorrad dealer.

Checking the brake-fluid level, rear brakes



WARNING

Not enough brake fluid in brake fluid reservoir.

Considerably reduced braking power due to air in the brake system.

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



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



NOTICE

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



Brake fluid level, rear

Brake fluid, DOT4

Do not permit the brake fluid level to 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.
- » The pressure point must be clearly perceptible.

If the pressure point is not clearly perceptible:

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

Rims and tyres

Checking rims

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

Check spokes

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

Check the tyre tread depth



WARNING

Riding with badly worn tyres

Risk of accident due to impaired handling

- If applicable, have the tyres changed in good time before

they wear to the minimum tread depth permitted by law.◀

- Make sure the ground is level and firm and place the motorcycle on its stand.
- Measure the tyre tread depth in the main tread grooves with wear marks.



NOTICE

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

If the tyre tread is worn to minimum:

- Replace tyre or tyres, as applicable.

Wheels

Tyre recommendation

For each size of tyre, BMW Motorrad tests and classifies as roadworthy certain makes. BMW Motorrad cannot assess the suitability or provide any guarantee of road safety for other tyres.

BMW Motorrad recommends using only tyres tested by BMW Motorrad.

You can obtain detailed information from your authorised BMW Motorrad dealer or on the Internet at **www.bmw-motorrad.com**.

Effect of wheel size on ABS

The wheel size has a large influence on the functionality of the ABS system. In particular, the diameter and the width of a vehicle's wheels are programmed

into the control unit and are fundamental to all calculations. Any change in these influencing variables, caused for example by a switch to non-standard installed wheels, can have serious effects on the performance of the control systems.

The sensor rings are essential for correct road-speed calculation, and they too must match the motorcycle's control systems and consequently cannot be changed.

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

Removing front wheel



NOTICE

The front-wheel cover has to be detached on one side to facilitate wheel removal/installation.◀

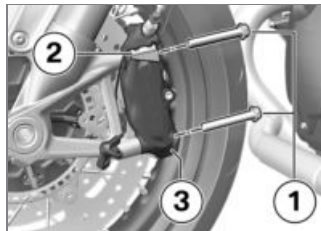
- Make sure the ground is level and firm and place the motorcycle on its stand.



- Slacken screws **1**.
- Mask off the parts of the wheel rim that could be scratched in the process of removing the brake calipers.



- Disengage the sensor cable **arrow** from the holder.
- Remove screw **1** and remove wheel-speed sensor **2** from its bore.

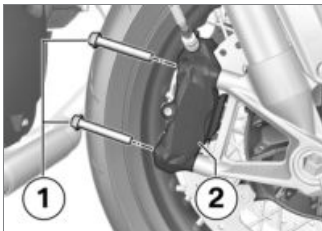


ATTENTION

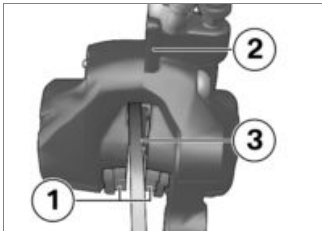
Brake pads pushed together with brake caliper removed.

It is not possible to slip the brake caliper over the brake disc.

- Do not operate the brake lever while a brake caliper has been removed.◀
- Remove screws **1** on left.
- Disengage bracket **2** for the sensor cable and brake caliper **3**.



- Remove screws **1** on right and disengage brake caliper **2**.



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

- Carefully pull the brake calipers back and out until clear of the brake discs.



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.◀
- Lift the motorcycle, preferably with a BMW Motorrad rear-wheel stand.
- Install the rear-wheel stand (▮▮▮ 72).

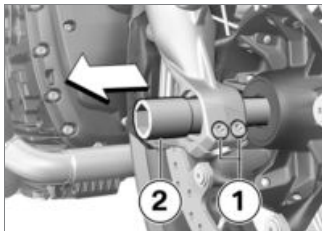


ATTENTION

Use of the BMW Motorrad front wheel stand without also accompanying use of auxiliary stand.

Risk of damage to parts if vehicle topples.

- Place the motorcycle on an auxiliary stand before lifting the front wheel with the BMW Motorrad front-wheel stand.◀
- Lift the front of the motorcycle until the front wheel is clear of the ground, preferably using a BMW Motorrad front-wheel stand.
- Install the front-wheel stand (▮▮▮ 70).



ATTENTION

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

Damage to wheel speed sensor.
ABS malfunction.

- Left clamp locates the threaded bush; do not loosen or remove this clamp.◀
- Slacken axle clamping screws **1**.
- Remove quick-release axle **2**, while supporting the wheel.

- Do not wipe the grease off the axle.
- Roll the front wheel forward to remove.



- Remove spacing bushing **1** from the left-hand side of the front-wheel hub.

Installing front wheel



WARNING

Use of a non-standard wheel.

Malfunctions in operation of ABS.

- See the information on the effect of wheel size on the

ABS system at the start of this chapter.◀



ATTENTION

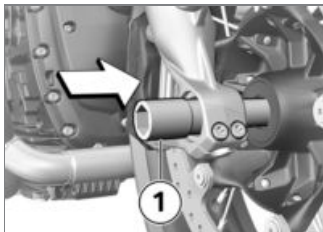
Tightening threaded fasteners to incorrect tightening torque.

Damage, or threaded fasteners work loose.

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



- Slip spacing bushing **1** into the wheel hub on the left-hand side.



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



Lubricant

Optimoly TA



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.



WARNING

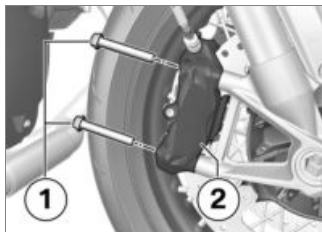
Installation of the quick-release axle not in compliance with correct procedure.

Loosening of the front wheel.

- After securing the brake calipers and relieving the front forks, tighten the quick-release axle and the axle clamp-

ing screws to the specified torque.◀

- Lift the front wheel, insert quick-release axle **1** and secure it loosely.

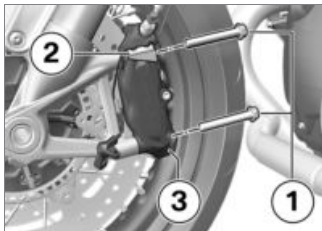


- Hold right brake caliper **2** in position and install screws **1**.



Brake caliper on telescopic fork

38 Nm



- Hold left brake caliper **3** and bracket **2** in position.
- Install screws **1**.



Brake caliper on telescopic fork

38 Nm

- Remove the adhesive tape from the wheel rim.



- Secure the sensor cable **arrow** to the brake line.
- Insert wheel-speed sensor **2** into the bore and install with screw **1**.



WARNING

Brake pads not contacting the brake disc.

Delayed braking effect.

- Before riding off, always check that the brakes bite as soon as the brake lever is pulled or the brake pedal depressed.◀

- Operate the brake several times until the brake pads are bedded.
- Removing the front-wheel stand.
- Extend the side stand.

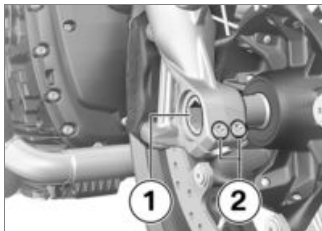


ATTENTION

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.



- Firmly compress the front forks several times.
- Firmly tighten quick-release axle **1**.



Quick-release axle in axle holder

50 Nm

- Tighten axle clamping screws **2**.



Clamping screws in axle holder

Tightening sequence: Tighten screws six times in alternate sequence

19 Nm



- Tighten screws **1**.

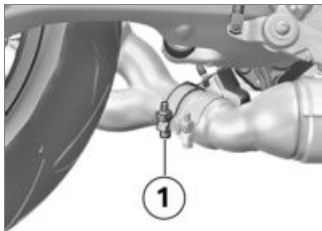


Wheel cover, front, to forks

5 Nm

Removing rear wheel

- Make sure the ground is level and firm and place the motorcycle on its stand.
- Install the rear-wheel stand (➡ 72).

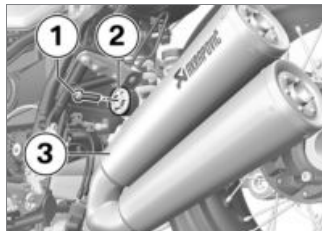


CAUTION

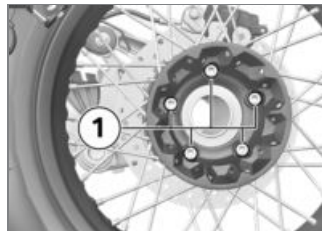
Hot exhaust system.

Risk of burn injury

- Do not touch a hot exhaust system. ◀
- Slacken screw **1** of the clamp and slip the clamp to the rear.
- Do not remove the sealing grease from the clamp.



- Remove screw **1** and retaining plate **2** of the holder of the silencer from the rear footrest.
- Work silencer **3** to the rear to remove and lay it on a padded rest.
- Engage first gear.



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

Installing the rear wheel



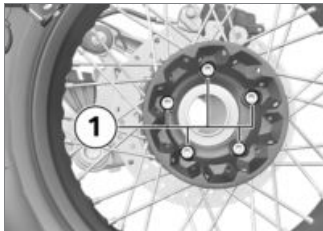
WARNING

Use of a non-standard wheel.

Malfunctions in operation of ABS.

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

- Seat the rear wheel on the rear-wheel adapter.



- Install screws **1**.

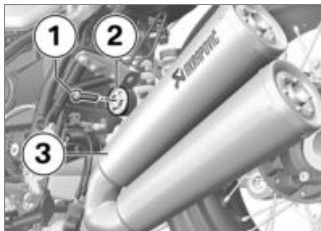


Rear wheel to wheel carrier

Tightening sequence: tighten in diagonally opposite sequence

60 Nm

- Slip the silencer on to the pipe at the exhaust-flow control valve.

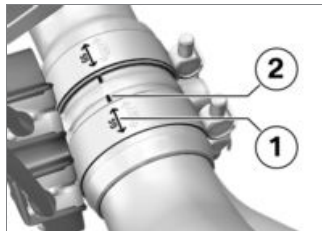


- Align silencer **3**, hold retaining plate **2** in position and install screw **1**.

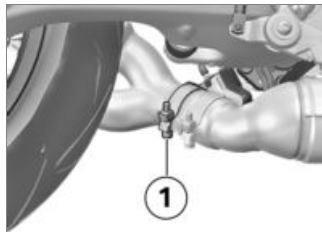


Silencer to rear-seat frame

10 Nm



- Slip the clamp forward as far as it will go and turn it so that the **(GS)** mark **1** on the clamp is in line with mark **2**.



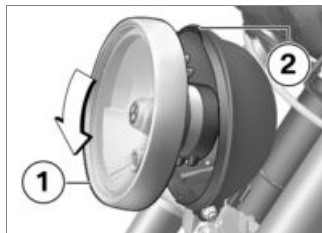
- Tighten screw **1**.



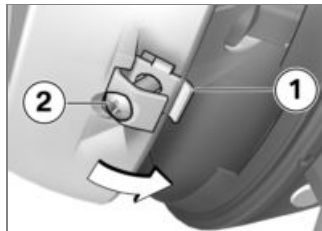
Clamp to silencer and
exhaust manifold

25 Nm

indicated **(arrow)** and lift up to
remove.



- Position light housing **1** behind
lug **2** and pivot it down.
- Centre light housing **1**.



WARNING

Bending of clips due to im- pact on the light housing.

Not possible to secure the light
housing reliably.

- Do not apply force.◀
- Use a screwdriver to push
screw **2** up.
- Pivot the light housing back.
» Clip **1** engages the light hous-
ing.
- Tighten screw **2**.

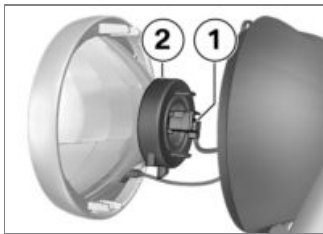


- Slacken screw **1** several turns.
- Carefully ease the bottom of
light housing **2** in the direction

Lighting

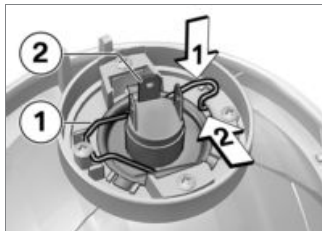
Replacing bulbs for low-beam and high-beam headlight

- Switching off ignition (➡ 30).
- Make sure the ground is level and firm and place the motorcycle on its stand.
- Remove the light housing (➡ 89).



- Disconnect plug **1** for low-beam and high-beam headlight.

- Remove rubber seal **2** from 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.

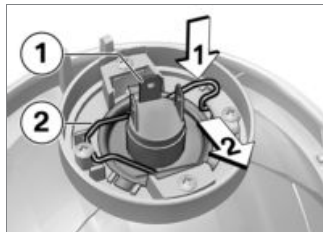
- Replace the defective bulb.



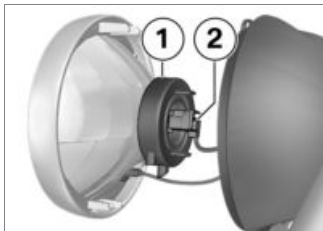
Bulb for low-beam and high-beam headlight

H4 / 12 V / 60/55 W

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



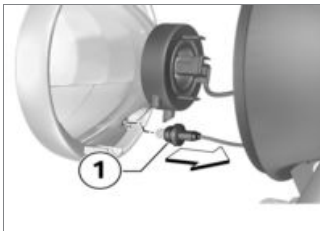
- Insert bulb **1** into the light housing.
- Flip spring clip **2** closed and seat it in the catch.



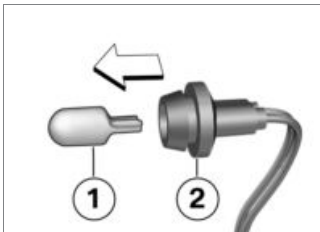
- Install rubber cap **1**.
- Connect plug **2** for low-beam and high-beam headlight.
- Install the light housing.

Replacing bulb for parking light

- Switching off ignition (III ➔ 30).
- Make sure the ground is level and firm and place the motorcycle on its stand.
- Remove the light housing (III ➔ 89).



- Remove socket **1** for the parking light from the light housing.



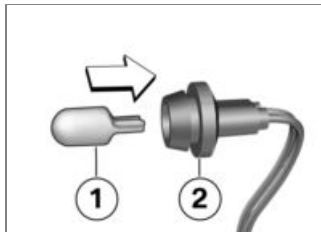
- Remove bulb **1** from socket **2**.
- Replace the defective bulb.



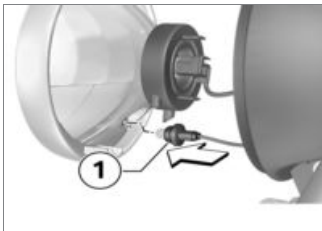
Bulb for parking light

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 light housing.

Replacing bulbs for front and rear turn indicators

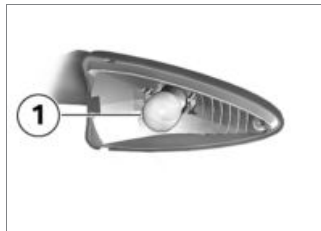
- Switching off ignition (⏻ 30).
- Make sure the ground is level and firm and place the motor-cycle on its stand.



- Remove screw **1**.



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



- Turn bulb **1** counter-clockwise and remove it from the light housing.
- Replace the defective bulb.

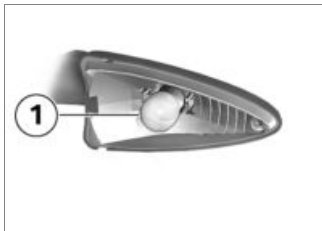
 Bulbs for flashing turn indicators, front

RY10W / 12 V / 10 W

 Bulbs for flashing turn indicators, rear

RY10W / 12 V / 10 W

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



- Turn bulb **1** clockwise to install it in the light housing.



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



- Install screw **1**.

Replacing LED rear light

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

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

Jump-starting



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. ◀

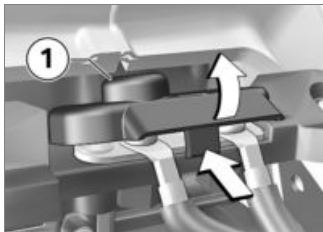


ATTENTION

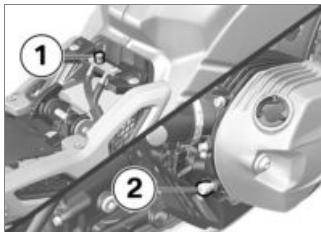
Jump-starting with a voltage greater than 12 V.

Damage to the on-board electronics.

- Make sure that the battery of the donor vehicle has a voltage rating of 12 V.◀
- Make sure the ground is level and firm and place the motorcycle on its stand.
- Remove the rear seat (➡ 42).
- Remove the front seat (➡ 41).



- Unclip cover **1** at the bottom **arrow** and work it up to remove.



- Begin by connecting one end of the red jump lead to battery-positive connection point **1** and the other end to the positive terminal of the donor battery.
- Connect one end of the black jump lead to screw terminal **2** on the vehicle and the other end to the negative terminal of the donor battery.
- Run the engine of the donor vehicle during jump-starting.
- Start the engine of the vehicle with the discharged battery in the usual way; if the engine does not start, wait a few minutes before repeating the

attempt in order to protect the starter motor and the donor battery.

- Allow both engines to idle for a few minutes before disconnecting the jump leads.
- Disconnect the jump lead from screw terminal **2** first, then disconnect the second jump lead from battery-positive connection point **1**.



NOTICE

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

Battery

Maintenance instructions

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

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

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



ATTENTION

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

Battery is deep-discharged; this voids the guarantee.

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



NOTICE

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

Charge battery when connected

- Disconnect devices plugged into the sockets.



ATTENTION

Charging connected battery via the battery terminals.

Damage to the on-board electronics.

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



ATTENTION

Unsuitable battery chargers connected to an on-board socket.

Damage to charger and to frame and suspension electronics.

- Use suitable BMW chargers. The suitable charger is available from your authorised BMW Motorrad dealer.◀



ATTENTION

Charging a fully discharged battery via the on-board 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.◀

- Charge via the charging socket, with the battery connected to the motorcycle's on-board electrical system.



NOTICE

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

- Comply with the operating instructions of the charger.



NOTICE

If you are unable to charge the battery through the on-board socket, you may be using a char-

ger that is not compatible with your motorcycle's electronics. If this happens, disconnect the battery from the on-board systems and connect the charger directly to the battery.◀

Charging battery when disconnected

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



NOTICE

The battery has to be recharged at regular intervals in the course of a lengthy period of disuse. See the instructions for caring for your battery. Always fully re-

charge the battery before restoring it to use.◀

Replacing battery

Consult a specialist workshop, preferably an authorised BMW Motorrad dealer, if the battery is faulty.

Accessories

General instructions.....	98
Power sockets	98
Luggage	99
Rear-seat frame	99
Installing rear-seat frame	103

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 ac-

cessory 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.

You can examine all the optional accessories from BMW Motorrad by visiting our website:

"www.bmw-motorrad.com".

Power sockets

Notes on use of power sockets:

Automatic shutdown

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

- If battery charge state is too low to maintain the motor-cycle's start capability
- If maximum load capability as stated in the technical data is exceeded
- When the engine is being cranked on the starter.

Connection of electrical devices

You can start using electrical devices connected to the motor-cycle'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 the cables do not hinder or obstruct the rider in any way.
- Make sure that the cables do not affect the movement of the handlebars and the handling of the vehicle in any way.
- Make sure that cables cannot become kinked or trapped.

Luggage

Securing luggage to motorcycle

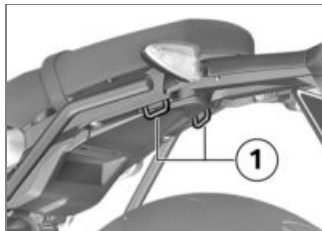


WARNING

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 soft-bag) to lashing eyes **1**. You can obtain additional information on luggage systems and how to secure them correctly from your authorised BMW Motorrad dealer.

Rear-seat frame

Removing rear-seat frame



ATTENTION

Hard or sharp-edged components.

Scratches and damage to paintwork.

- Use a suitable soft cover or mask off the areas at risk.◀

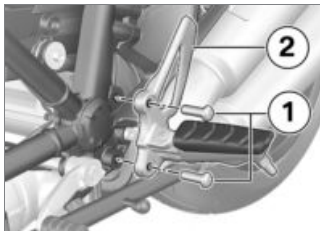


NOTICE

An optional accessory (bracket for silencer) has to be installed if the rear-seat frame is removed. Detailed information is available from your authorised BMW Motorrad dealer or in the internet at **www.bmw-motorrad.com**.

Also be sure to consult the general notes at the start of this section.◀

- Make sure the ground is level and firm and place the motorcycle on its stand.
- Install the rear-wheel stand (► 72).
- Remove the rear seat (► 42).
- Remove the front seat (► 41).



- Remove screws **1** and remove left footrest system **2**.

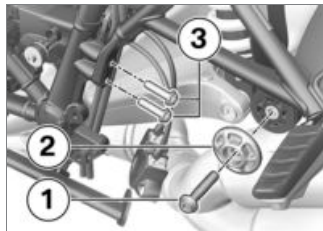


ATTENTION

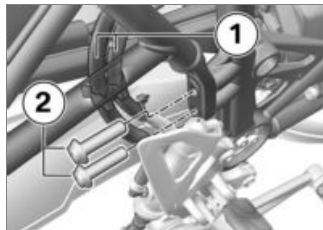
Hard or sharp-edged components.

Scratches and damage to paintwork.

- Use a suitable soft cover or mask off the areas at risk.◀



- Remove screw **1** and washer **2**.
- Remove screws **3**.

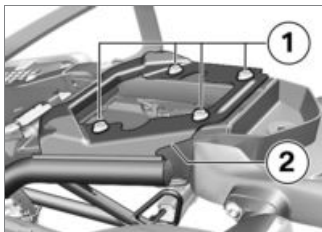


ATTENTION

Trapping of components.

Component damage

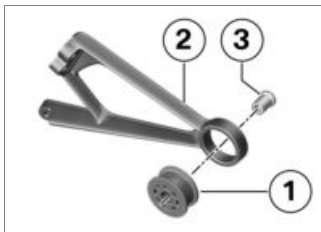
- Do not trap components such as brake lines or cable legs.◀
- Disengage lines **1** from the holder.
- Remove screws **2**.



- Remove screws **1** and work rear-seat frame **2** to the rear to remove.

Preparing bracket for silencer

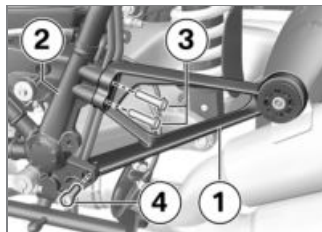
– with bracket for silencer^{OA}



- Secure rubber decoupling element **1** in bracket **2** for the silencer and install shouldered bushing **3** from the right.

Installing bracket for silencer

– with bracket for silencer^{OA}



- Position bracket **1** for the silencer on rear frame **2**.
- Loosely install screws **3** and **4**.
- Tighten screws **3**.

 Rear-seat frame to rear frame

19 Nm

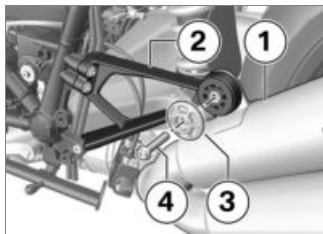
- Tighten screw **4**.

 Bracket for silencer to rear frame

19 Nm

Securing silencer

– with bracket for silencer^{OA}



- Align silencer **1** with bracket **2**, hold washer **3** in position and install screw **4**.

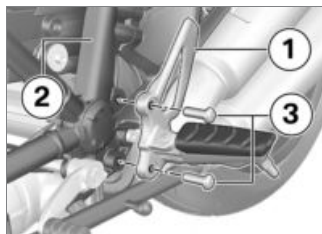


Silencer to bracket

– with sports silencer^{OA}

19 Nm◁

Installing left footrest system



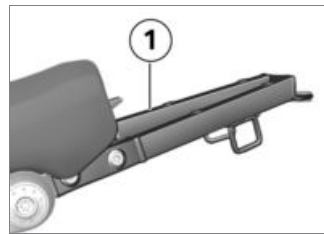
- Hold left footrest system **1** in position on rear frame **2** and install screws **3**.



Footrest system to rear frame

19 Nm

Loading correctly; rear-seat frame not fitted



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.◀
- Once the rear-seat frame has been removed, it is essential to comply with the load limit spe-

cified for the luggage frame **1**
(see graphic).



Load on luggage frame

max 8 kg

Optional accessory

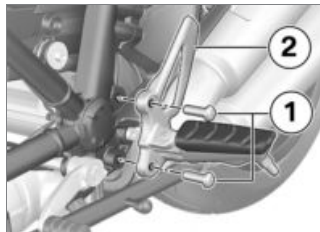


Your BMW Motorrad dealer can offer expert advice on the choice of genuine BMW parts, accessories and other products such as the aluminium tail-hump cover and the cover for the rear frame. You can examine all the optional accessories from BMW Motorrad

by visiting our website:
"www.bmw-motorrad.com".

Installing rear-seat frame

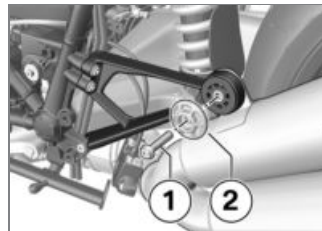
Removing left footrest system



- Remove screws **1** and remove left footrest system **2**.

Removing silencer

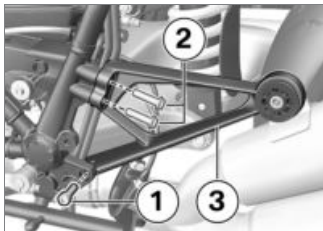
– with bracket for silencer^{OA}



- Remove screw **1** and washer **2**.

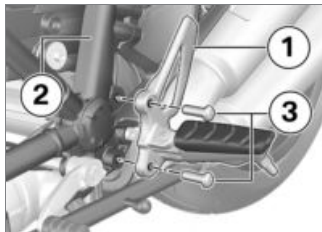
Removing bracket for end silencer

– with bracket for silencer^{OA}



- Remove screws **1** and **2**.
- Remove bracket **3** for the silencer.

Installing left footrest system



- Hold left footrest system **1** in position on rear frame **2** and install screws **3**.



Footrest system to rear frame

19 Nm

Installing rear-seat frame

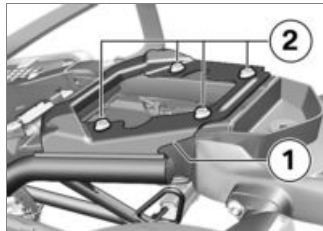


ATTENTION

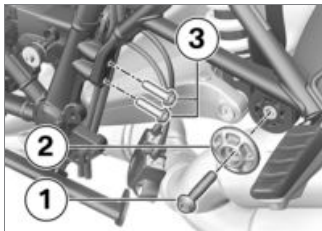
Hard or sharp-edged components.

Scratches and damage to paintwork.

- Use a suitable soft cover or mask off the areas at risk.◀
- Remove the front seat (▶ 41).



- Insert rear-seat frame **1** from behind and loosely install screws **2**.



- Loosely install screw **1** and retaining plate **2**.
- Install screws **3**.



Rear-seat frame to rear frame

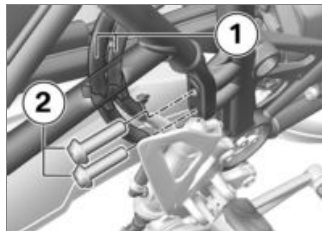
19 Nm

- Tighten screw **1**.



Silencer to rear-seat frame

10 Nm



ATTENTION

Trapping of components.

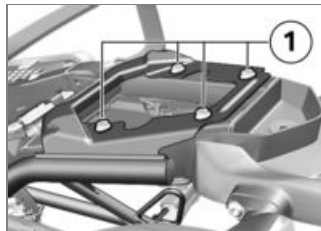
Component damage

- Do not trap components such as brake lines or cable legs. ◀
- Secure lines **1** in holder **2**.
- Install screws **2**.



Rear-seat frame to rear frame

19 Nm



- Tighten screws **1**.



Rear-seat frame to luggage frame

8 Nm

- Remove all masking tape.
- Installing front seat (➡ 41).
- Install the rear seat (➡ 42).
- Remove the rear-wheel stand.

Care

Care products	108
Washing the vehicle	108
Cleaning easily damaged components.....	109
Paint care	109
Laying up the motorcycle	110
Protective wax coating	110
Restoring motorcycle to use	110

Care products

BMW Motorrad recommends that you use the cleaning and care products you can obtain from your authorised BMW Motorrad dealer.

The substances in BMW CareProducts have been tested in laboratories and in practice; they provide optimised care and protection for the materials used in your vehicle.



ATTENTION

Use of unsuitable cleaning and care products.

Damage to vehicle parts.

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

Washing the vehicle

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

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

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

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



WARNING

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

Diminished braking effect.

- 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 seals, to the hydraulic brake system, to the electrics and the 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

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

Radiator

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

ATTENTION

Radiator fins easily bent.

Damage to radiator fins.

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

Rubber

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

ATTENTION

Application of silicone sprays to rubber seals.

Damage to the rubber seals.

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

Paint care

Washing the vehicle regularly will help counteract the long-term effects of substances that damage the paint, especially if

your vehicle is ridden in areas with high air pollution or natural sources of dirt, for example tree resin or pollen.

Remove particularly aggressive substances immediately, however, as otherwise the paint can be affected or become discoloured. Substances of this nature include spilt fuel, oil, grease, brake fluid and bird droppings. We recommend BMW vehicle polish or BMW paint cleaner for this purpose.

Marks on the paintwork are particularly easy to see after the motorcycle has been washed.

Remove stains of this kind immediately, using cleaning-grade benzene or petroleum spirit on a clean cloth or ball of cotton wool. BMW Motorrad recommends BMW tar remover for removing specks of tar. Remember to wax the parts treated in this way.

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.

Protective wax coating

BMW Motorrad recommends applying only BMW car wax or products containing carnauba wax or synthetic wax.

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

Restoring motorcycle to use

- Remove the protective wax coating.
- Clean the motorcycle.
- Install a charged battery.
- Before starting: work through the checklist.

Technical data

Troubleshooting chart	112	Riding specifications	126
Threaded fasteners	113	Anti-theft alarm	126
Engine	116	Remote control	127
Fuel.....	117		
Engine oil	118		
Clutch	118		
Transmission	119		
Rear-wheel drive.....	119		
Running gear	120		
Brakes	121		
Wheels and tyres	122		
Electrics	124		
Frame	125		
Dimensions	125		
Weights.....	126		

Troubleshooting chart

Engine does not start or is difficult to start.

Possible cause	Rectification
Emergency off switch (kill switch)	Kill switch in operating position
Side stand extended and gear engaged	Retract the side stand
Gear engaged and clutch not disengaged	Select neutral or pull clutch lever
No fuel in tank	Refuelling (▮▮▮▶ 61).
Battery flat	Charge battery when connected (▮▮▮▶ 95).

Threaded fasteners

Front wheel	FR	Valid
Brake caliper on telescopic fork		
M10 x 65	38 Nm	
Clamping screws in axle holder		
M8 x 35	Tighten screws six times in alternate sequence	
	19 Nm	
Quick-release axle in axle holder		
M24 x 1.5	50 Nm	
Rear wheel	FR	Valid
Rear wheel to wheel carrier		
M10 x 53 x 1.25	tighten in diagonally opposite sequence	
	60 Nm	
Mirror arm	FR	Valid
Mirror (lock nut) to adapter		
Left-hand thread, M10 x 1.25	22 Nm	

Mirror arm	FR	Valid
Adapter to clamping block		
M10	25 Nm	
Headlight	FR	Valid
Headlight to bracket		
M8 x 40	19 Nm	
Front-wheel cover	FR	Valid
Wheel cover, front, to forks		
M5 x 20	5 Nm	
Frame	FR	Valid
Footrest system to rear frame		
M8 x 25	19 Nm	
Rear-seat frame to rear frame		
M8 x 30	19 Nm	
Rear-seat frame to luggage frame		
M6 x 20	8 Nm	

Exhaust system	FR	Valid
Clamp to silencer and exhaust manifold		
M8 x 40 - 10.9	25 Nm	
Silencer to rear-seat frame		
M8 x 40	10 Nm	
Bracket for silencer to rear frame		
M8 x 30	19 Nm	– with bracket for silencer ^{OA}
M8 x 25	19 Nm	
Silencer to bracket		
M8 x 60	19 Nm	– with sports silencer ^{OA}

Engine

Location of engine number	Crankcase, bottom right, in front of cylinder
Engine type	122EJ
Engine design	Four-stroke opposed twin, air-cooled with oil-cooled exhaust ports, installed longitudinally, two overhead camshafts and four radially positioned valves per cylinder, electronic engine management
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	119 Nm, - at engine speed: 6000 min ⁻¹
Maximum engine speed	max 8500 min ⁻¹
Idle speed	1150± ⁵⁰ min ⁻¹ , Engine at regular operating temperature

Fuel

Recommended fuel grade	Premium plus unleaded (max. 10 % ethanol, E10) 98 ROZ/RON 91 AKI
Alternative fuel grade	Premium unleaded (slight power restriction and possibly higher fuel consumption) (max. 10 % ethanol, E10) 95 ROZ/RON 89 AKI
Usable fuel capacity	approx. 18 l
Reserve fuel	approx. 3 l
Exhaust emissions standard	EU 3

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

Transmission

Gearbox type	Helical 6-speed gearbox with integral reaction damper, claw-action shift by sliding sleeves
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 single swinging arm with BMW Motorrad Paralever
Gear ratio of final drive	2.910 (32/11 teeth)

Running gear

Front wheel

Type of front suspension	Upside-down telescopic fork
Spring travel, front	120 mm, at wheel

Rear wheel

Type of rear suspension	Cast-aluminium single swinging arm 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	120 mm
Recommended suspension setting for one-up riding	Spring preload, Turn the dial counter-clockwise as far as it will go Damping, Turn the adjusting screw clockwise as far as it will go, then back it off 1.5 turns
Recommended suspension setting for two-up riding	Spring preload, Turn the dial clockwise as far as it will go Damping, Turn the adjusting screw clockwise as far as it will go, then back it off 1 turn

Brakes

Type of front brake	Hydraulically actuated twin-disc brake with 4-piston radial monobloc calipers and floating brake discs
Brake-pad material, front	Sintered metal
Brake disc thickness, front	min 4 mm, Wear limit
Play of brake controls (Front brake)	1.85 ± 0.25 mm, at piston
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
Play of brake controls (Rear brake)	0.7 ± 0.2 mm, at piston

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 web-site.
Speed category, front/rear tyres	V, required at least: 240 km/h
Front wheel	
Front wheel type	Spoked wheel with 40 spokes
Front wheel rim size	3.5" x 17"
Tyre designation, front	120 / 70 ZR 17
Load index, front tyre	min. 52
Wheel load, front, at unladen weight	112 kg
Permissible wheel load, front	max 160 kg
Permissible front-wheel imbalance	max 5 g

Rear wheel

Rear-wheel type	Spoked wheel with 40 spokes
Rear wheel rim size	5.50" x 17"
Tyre designation, rear	180 / 55 ZR 17
Load index, rear tyre	min. 70
Wheel load, rear, at unladen weight	110 kg
Permissible wheel load, rear	max 270 kg
Permissible rear-wheel imbalance	max 5 g

Tyre pressures

Tyre pressure, front	2.5 bar, tyre cold
Tyre pressure, rear	2.5 bar, one-up, tyre cold 2.9 bar, two-up, tyre cold

Electrics

Electrical rating of on-board socket	5 A
Battery	
Battery type	AGM (Absorbent Glass Mat) battery
Battery rated voltage	12 V
Battery rated capacity	14 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
Bulbs for flashing turn indicators, rear	RY10W / 12 V / 10 W
Fuses	Electronic fuses protect the circuits. If an electronic fuse trips and de-energises a circuit, the circuit is active as soon as the ignition is switched on after the fault has been rectified.

Frame

Frame type	4-part tubular-steel frame with partially load-bearing propulsion unit
Type plate location	Steering head, front left
Position of the Vehicle Identification Number	Rear frame front right at bottom

Dimensions

Length of motorcycle	2085 mm
Height of motorcycle	1265 mm, in DIN normal-load position; with mirrors
Width of motorcycle	890 mm, with mirrors
Front-seat height	785 mm, Without rider
– with Custom front seat ^{OA}	775 mm, Without rider
Rider's inside-leg arc, heel to heel	1760 mm, Without rider
– with Custom front seat ^{OA}	1755 mm, Without rider

Weights

Unladen weight	222 kg, DIN unladen weight, ready for road, 90 % load of fuel, without optional extras
Permissible gross weight	430 kg
Maximum payload	208 kg

Riding specifications

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

Anti-theft alarm

– with alarm system (DWA)^{OE}

Activation time on arming	15 s
Alarm duration	26 s
Activation time between two alarms	12 s
Temperature range	-40...85 °C
Operating voltage	9...16 V

Remote control

– with alarm system (DWA)^{OE}

Range of the remote control	10 m
Reception standby for signal from remote control	1 h, after ignition OFF
Signal frequency	25 kHz, Broadband
Transmission frequency	433.92 MHz
Battery voltage (for remote control)	3 V
Battery type (for remote control)	CR 2032 lithium

Service

BMW Motorrad Service	130
BMW Motorrad Mobility services	130
Maintenance work	130
Maintenance schedule	133
Running-in check	134
Standard BMW service	134
Confirmation of maintenance work	136
Confirmation of service	141

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 reliably carry out all maintenance and repair work on your BMW.

Visit our website www.bmw-motorrad.com to find out where the nearest authorised BMW Motorrad dealership is located.



WARNING

Maintenance and repair work not in compliance with correct procedure.

Risk of accident due to subsequent damage.

- BMW Motorrad recommends you to have all the associated

work on your motorcycle carried out by a specialist workshop, preferably an authorised BMW Motorrad dealer. ◀

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

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

BMW Motorrad Mobility services

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

Maintenance work

BMW Pre-delivery Check

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

BMW Running-in Check

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

BMW Service

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

Riders who cover long distances in a year might have to bring in their vehicles for service before the next scheduled date. It is to allow for these cases that a maximum odometer reading is entered as well in the confirmation of service. Servicing has to be brought forward if this odo-

meter 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 maintenance tasks necessary for your vehicle are set out in the maintenance schedule below:

	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			
⑪		X	X	X	X	X	X	X	X	X	X		
⑫												X ^e	X ^e

Maintenance schedule

- 1** Running-in check (▮▮▮▮ 134)
 - 2** Standard BMW service (▮▮▮▮ 134)
 - 3** Engine-oil change, with filter
 - 4** Oil change in bevel gears
 - 5** Check valve clearance
 - 6** Change gearbox oil
 - 7** Replace all spark plugs
 - 8** Replace air-filter element
 - 9** Replace belt for alternator
 - 10** Oil change in the telescopic forks
 - 11** Adjust engine synchronisation
 - 12** Change brake fluid, entire system
- a annually or every 10,000 km (whichever comes first)
- b every 2 years or every 20,000 km (whichever comes first)

- c for the first time after one year, then every two years or 40,000 km (whichever comes first)
- d every six years or every 40,000 km (whichever comes first)
- e for the first time after one year, then every two years

Running-in check

The running-in check consists of the following checks and maintenance work.

- Set the service-due date and countdown distance.
- Perform vehicle test with the BMW Motorrad diagnosis system.
- Engine-oil change, with filter.
- Change the oil in the bevel gears.
- Adjust the steering-head bearing.
- Check the brake-fluid level of the front brakes.
- Check the brake-fluid level of the rear brakes.
- Check the ease of movement of the Bowden cables, check for chafing and kinks and check play.
- Check the tyre tread depth and tyre pressures.

- Check the spoke tension, adjust if necessary.
- Check the lights and signalling equipment.
- Function test of the engine start suppression system.
- Check synchronisation.
- Final inspection and check of roadworthiness.
- Confirm BMW service in the on-board documentation.

Standard BMW service

A standard BMW service consists of the following maintenance work:

- Perform vehicle test with the BMW Motorrad diagnosis system.
- Visually inspect the hydraulic clutch system.
- Check the steering-head bearing.

- Visually inspect the brake pipes, brake hoses and connections.
- Check the front and rear brake pads and brake discs for wear.
- Check the front and rear brake-fluid levels.
- Check the ease of movement of the Bowden cables, check for chafing and kinks and check play
- Check the tyre pressures and tread depth.
- Check the ease of movement of the side stand.
- Check the spoke tension, adjust if necessary.
- Check the lights and signalling equipment.
- Check that the engine start suppression system is in working order.
- Perform final inspection and check of roadworthiness.

- Set the service-due date and service countdown distance.
- Check the battery charge state.
- Confirm BMW service in the on-board documentation.

Confirmation of maintenance work

BMW Pre-delivery Check

Completed

on _____

Stamp, signature

BMW Running-in Check

Completed

on _____

Odometer reading _____

Next service
at the latest

on _____

or, if logged beforehand,

Odometer reading _____

Stamp, signature

BMW Service

Completed

on _____

Odometer reading _____

Next service
at the latest

on _____

or, if logged beforehand,

Odometer reading _____

Stamp, signature**BMW Service**

Completed

on _____

Odometer reading _____

Next service
at the latest

on _____

or, if logged beforehand,

Odometer reading _____

Stamp, signature**BMW Service**

Completed

on _____

Odometer reading _____

Next service
at the latest

on _____

or, if logged beforehand,

Odometer reading _____

Stamp, signature

BMW Service

Completed

on _____

Odometer reading _____

Next service
at the latest

on _____

or, if logged beforehand,

Odometer reading _____

Stamp, signature**BMW Service**

Completed

on _____

Odometer reading _____

Next service
at the latest

on _____

or, if logged beforehand,

Odometer reading _____

Stamp, signature**BMW Service**

Completed

on _____

Odometer reading _____

Next service
at the latest

on _____

or, if logged beforehand,

Odometer reading _____

Stamp, signature

BMW Service

Completed

on _____

Odometer reading _____

Next service
at the latest

on _____

or, if logged beforehand,

Odometer reading _____

Stamp, signature**BMW Service**

Completed

on _____

Odometer reading _____

Next service
at the latest

on _____

or, if logged beforehand,

Odometer reading _____

Stamp, signature**BMW Service**

Completed

on _____

Odometer reading _____

Next service
at the latest

on _____

or, if logged beforehand,

Odometer reading _____

Stamp, signature

BMW Service

Completed

on _____

Odometer reading _____

Next service
at the latest

on _____

or, if logged beforehand,

Odometer reading _____

Stamp, signature**BMW Service**

Completed

on _____

Odometer reading _____

Next service
at the latest

on _____

or, if logged beforehand,

Odometer reading _____

Stamp, signature**BMW Service**

Completed

on _____

Odometer reading _____

Next service
at the latest

on _____

or, if logged beforehand,

Odometer reading _____

Stamp, signature

Confirmation of service

The table is intended as a record of maintenance and repair work, the installation of optional accessories and, if appropriate, special campaign (recall) work.

Item	Odometer reading	Date

[illegible]

Appendix

Certificate for electronic immobiliser	144
--	-----

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. ◀

A

- Abbreviations and symbols, 6
- ABS
 - Engineering details, 66
 - Self-diagnosis, 57
 - Warnings, 28
- Accessories
 - General instructions, 98
- Actuality, 7
- Alarm
 - triggering, 46
- Alarm function
 - Deactivating, 47
 - Motion sensor, activating, 45
- Average values
 - Resetting, 32

B

- Battery
 - change, 52
 - Charging battery when connected, 95
 - Charging battery when disconnected, 96
 - Maintenance instructions, 94
 - Position on the motorcycle, 16

- Replacing battery, 96
- Technical data, 124
- Warning for battery charge current, 27

- Brake fluid
 - Checking fluid level, front, 77
 - Checking fluid level, rear, 78
 - Reservoir, front, 13
 - Reservoir, rear, 13
- Brake pads
 - Checking front, 75
 - Checking rear, 75
 - Running in, 58
- Brakes
 - Adjusting handlebar lever, 36
 - Checking function, 74
 - Safety instructions, 59
 - Technical data, 121
 - Wear indicator, 76

C

- Checklist, 56
- Clock
 - adjusting, 31
- Control, 17

- Clutch
 - Adjusting handlebar lever, 36
 - Checking function, 79
 - Fluid reservoir, 11
 - Technical data, 118
- Confirmation of maintenance work, 136

D

- Damping
 - adjusting, 39
- Deactivating
 - Alarm, 47
 - Motion sensor, 46
- Default settings, 48
- Dimensions
 - Technical data, 125
- DWA
 - Telltale light, 17
 - Warning, 27

E

- Electrics
 - Technical data, 124

Emergency off switch (kill switch), 15
Operation, 35

Engine
starting, 56
Technical data, 116
Warning, engine electronics, 26

Engine oil
Checking fill level, 73
Filler neck, 13
Fill-level indicator, 11
Technical data, 118
Topping up, 74
Equipment, 7

F
Frame
Technical data, 125

Front seat
Installation, 41
Removal, 41
Front-wheel stand
Installing, 70

Fuel
Filler neck, 11
Refuelling, 61
Reserve volume, 22
Technical data, 117

Fuel reserve
Warning, 26

Fuses
Technical data, 124

G
General views
Instrument panel, 17
Left handlebar fitting, 14
Left side of vehicle, 11
Multifunction display, 21
Right handlebar fitting, 15
Right side of vehicle, 13
Underneath the seat, 16
Warning and telltale lights, 20

H
Hazard warning flashers
Control, 14
Operation, 34

Headlight
Adjustment for driving on left/
driving on right, 41
Beam throw, 41
Removing and installing, 89
Heated handlebar grips
Operation, 37
Horn, 14

I
Ignition
Switching off, 30
Switching on, 30
Immobiliser
Spare key, 31
Warning, 26
Instrument panel
Ambient-light brightness
sensor, 17
Overview, 17

J
Jump starting, 93

K
Keys, 30

L

Lighting

- Replacing bulb for parking light, 91
- Replacing bulbs for front and rear turn indicators, 92
- Replacing bulbs for low-beam and high-beam headlight, 90
- Replacing LED rear light, 93
- Technical data, 124
- Warning for faulty bulb, 27

Lights

- Control, 14
- Headlight flasher, operating, 33
- High-beam headlight, operating, 33
- Low-beam headlight, 33
- Parking lights, operating, 33
- Side light, 33

M

Maintenance

- General instructions, 70
- Maintenance schedule, 133

Maintenance intervals, 130

Mirrors

- adjusting, 38

Mobility services, 130

Motion sensor

- Deactivating, 46

Motorcycle

- Care, 107
- Cleaning, 107
- Lashing, 62
- Laying up, 110
- Parking, 60

Multifunction display, 17

- Control, 14
- Meaning of symbols, 22
- Overview, 21
- Select display, 32

Multifunction switch

- General view, left side, 14
- General view, right side, 15

O

Odometer

- Control, 17
- Resetting, 32

P

Parking, 60

Payload table

- Sticker, 16

Power socket

- Notes on use, 98
- Position on the vehicle, 11

Pre-Ride-Check, 57

Programming, 48

R

Rear seat

- Installation, 41
- Lock, 13
- Removal, 41

Rear-seat frame

- Installation, 103, 104
- Removal, 99

Rear-wheel drive

- Technical data, 119

Rear-wheel stand

- Installing, 72

Refuelling, 61

Registration

- Remote control, 50

Remote control
 registration, 50
 synchronising, 51
Rev. counter, 17
Rider's Manual
 Position on the motorcycle, 16
Running gear
 Technical data, 120
Running in, 58

S

Safety instructions
 For riding, 54
 Re. Brakes, 59
Service, 130
Spark plugs
 Technical data, 124
Speedometer, 17
Spring preload
 Adjuster, rear, 13
 adjusting, 38
Starting, 56
 Control, 15
Steering lock, 30

Symbols
 Meaning, 22

T

Technical data
 Battery, 124
 Brakes, 121
 Clutch, 118
 Dimensions, 125
 Electrics, 124
 Engine, 116
 Engine oil, 118
 Frame, 125
 Fuel, 117
 Lighting, 124
 Rear-wheel drive, 119
 Running gear, 120
 Spark plugs, 124
 Standards, 7
 Transmission, 119
 Weights, 126
 Wheels and tyres, 122
Telltale lights, 17
 Overview, 20

Toolkit
 Contents, 70
 Position on the motorcycle, 16
Torques, 113
Transmission
 Technical data, 119
Troubleshooting chart, 112
Turn indicators
 Control, left, 14
 Operation, 34
Type plate
 Position on the vehicle, 11
Tyre pressures
 Sticker, 16
Tyres
 Checking inflation pressure, 40
 Checking tread depth, 79
 Pressures, 123
 Recommendation, 80
 Running in, 58
 Technical data, 122

V

Vehicle
 Restoring to use, 110

Vehicle Identification Number
Position on the vehicle, 13

W

Warning lights, 17
Overview, 20

Warnings

ABS, 28
Anti-theft alarm, 27
Battery charge current, 27
Bulb faulty, 27
Engine electronics, 26
Fuel reserve, 26
Immobiliser, 26
Mode of presentation, 23

Warnings, overview, 24

Weights

Technical data, 126

Wheels

Change of size, 80
Check spokes, 79
Checking rims, 79
Installing front wheel, 83
Installing the rear wheel, 87
Removing front wheel, 81

Removing rear wheel, 86
Technical data, 122

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.

Original rider's manual, printed in Germany.

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Fuel

Tyre pressures

BMW recommends ADVANTEC
ORIGINAL BMW ENGINE OIL

