Rider's Manual

C 600 Sport



BMW Motorrad

The Ultimate
Riding Machine

Motorcycle data/dealership details

Motorcycle 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 Maxi-Scooter from BMW Motorrad and welcome you to the community of BMW riders.
Please read this Rider's Manual carefully before starting to use your new Maxi-Scooter. It contains important information on how to operate the controls and how to make the best possible use of all this Scooter'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.
If you have questions concerning your Maxi-Scooter, your authorised BMW Motorrad dealer will gladly provide advice and assistance.

We hope that you will enjoy your Maxi-Scooter and wish you a safe and pleasant journey

BMW Motorrad.

01 41 8 544 231



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General instructions

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Overview

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

Abbreviations and symbols

Indicates warnings that you must comply with for reasons of your safety and the safety of others, and to protect your vehicle against damage.

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

◀ 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 extra
The motorcycles are assembled complete with all the BMW Motorrad optional extras originally ordered.

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

ABS Anti-lock brake system

RDC Tyre pressure monitoring (ReifenDruck-Control)

EWS Electronic immobiliser.

DWA Anti-theft alarm (Diebstahlwarnanlage)

Equipment

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

Technical data

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

Currency

The high safety and quality standards of BMW Scooters are maintained by constant development work on designs, equipment and accessories. Because of this, your vehicle may differ from the information supplied in the Rider's Manual. Nor can BMW Motorrad entirely rule out errors and omissions. We hope you will appreciate that no claims can be entertained on the basis of the data, illustrations or descriptions in this manual.

General views

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1
2
4
3

General view, left side

1 Brake-fluid reservoir for the rear-wheel brake (➠ 83)
2 Fuel filler neck (underneath cover) (➠ 58)
3 Adjuster, spring preload (➠ 48)
4 Engine oil filler neck and oil dipstick (underneath footplate) (➠ 76)


1
2
3
4
5
6
7

General view, right side

1 Brake-fluid reservoir for the front-wheel brake (➠ 82)

2 Type plate (on the steering head tube right)

3 Battery (underneath side panel) (➠ 101)
Fuses (behind side panel) (➠ 93)

4 VIN (on right frame tube)

5 Coolant sight glass (through opening in side panel) (➠ 84)

6 Coolant expansion tank (underneath footrest plate) (➠ 84)

7 – with seat heating OE
Rear-seat heating operation (➠ 45)

Multifunction switch, left

1 Operation of high-beam headlight and headlight flasher (➠ 42)

2 Control for hazard warning flashers (➠ 43)

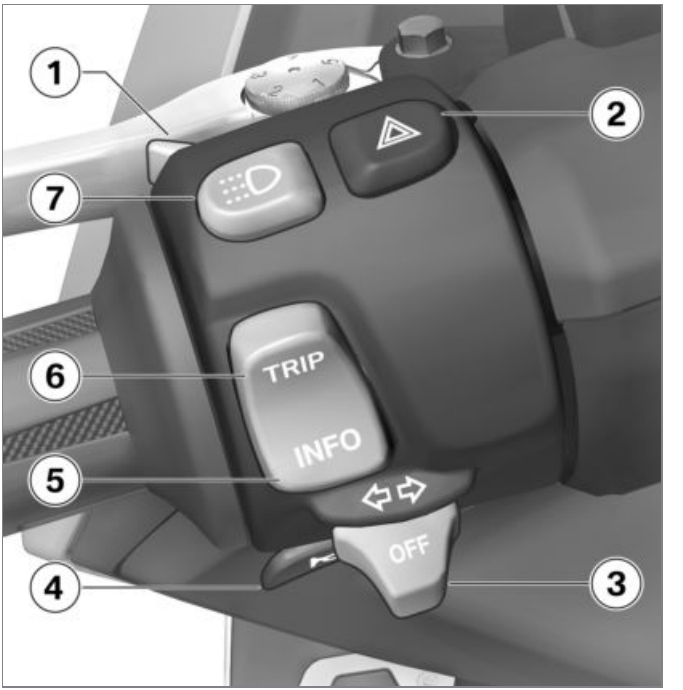
3 Operation of the flashing turn indicators (➠ 43)

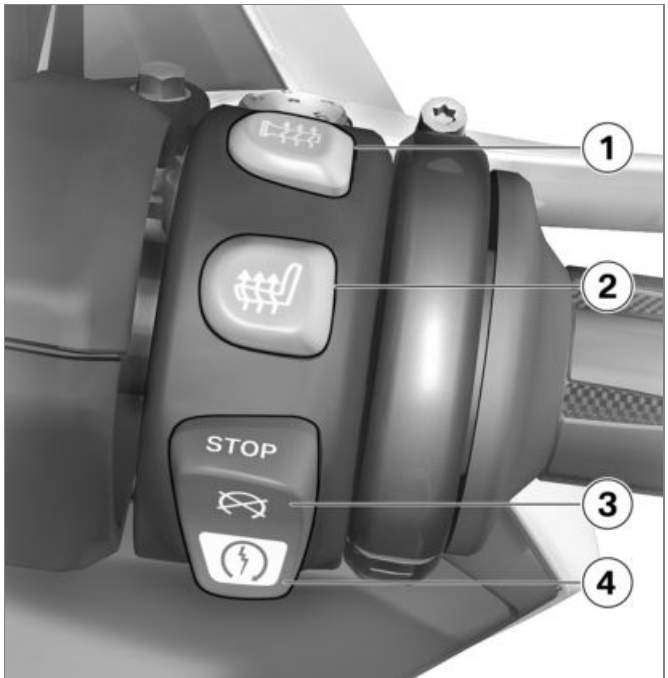
4 Horn

5 INFO, operation of the on-board computer (➠ 40)

6 TRIP, operation of the trip-meter (➠ 40)

7 – with daytime riding lights OE
Operation of the daytime riding lights (➠ 42)





Multifunction switch, right

1 – with heated handlebar grips OE
Grip heating control (➠ 44)

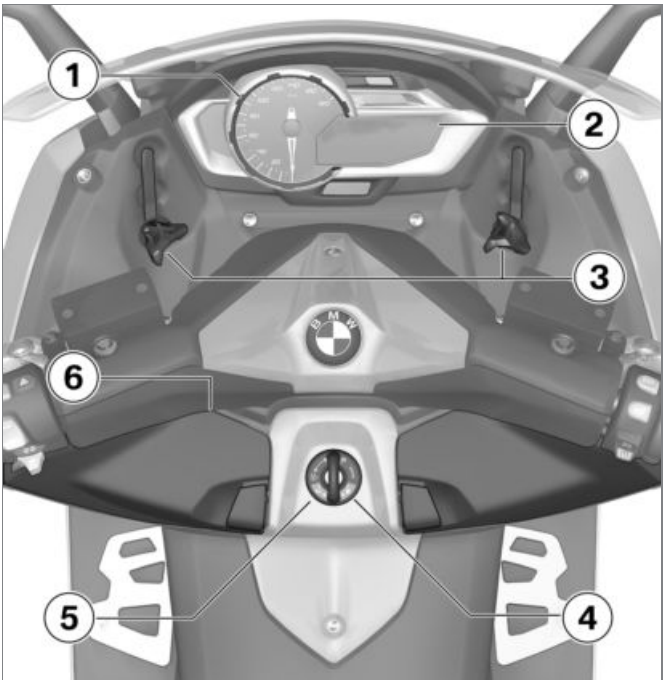
2 – with seat heating OE
Operation of seat heating (➠ 45)

3 Emergency off switch (kill switch) (➠ 44)

4 Starter button (➠ 54)

Cockpit

1 Speedometer
2 Multifunction display (➠ 20)
Warning and telltale lights (➠ 21)
3 Windscreen adjustment (➠ 47)
4 Release for fuel-tank cover (integrated into ignition switch/steering lock) (➠ 58)
5 Seat release (integrated into ignition switch/steering lock) (➠ 50)
6 Stowage compartment (➠ 47)
Socket (in the stowage compartment) (➠ 70)





Underneath the seat

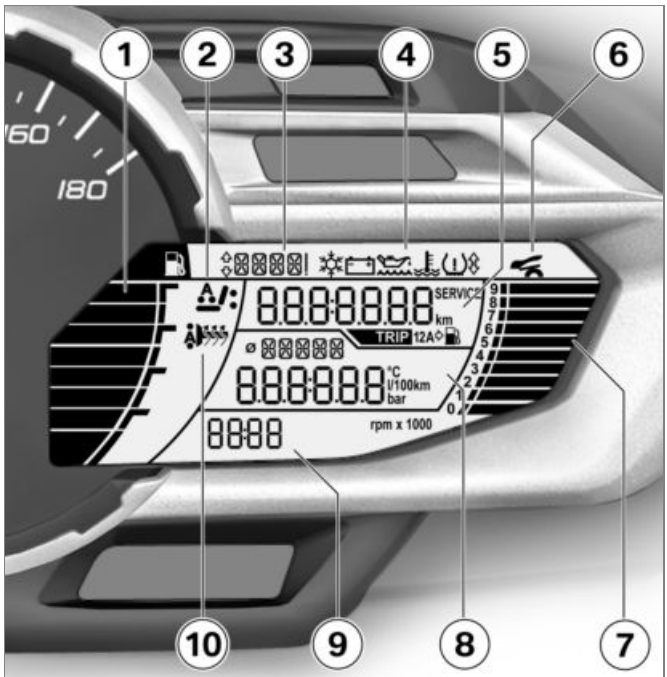
1 Rider's Manual
2 Toolkit (➠ 76)
3 Payload table
4 Table of tyre pressures
5 Release of the rear stowage compartment (BMW Flexcase) (➠ 48)

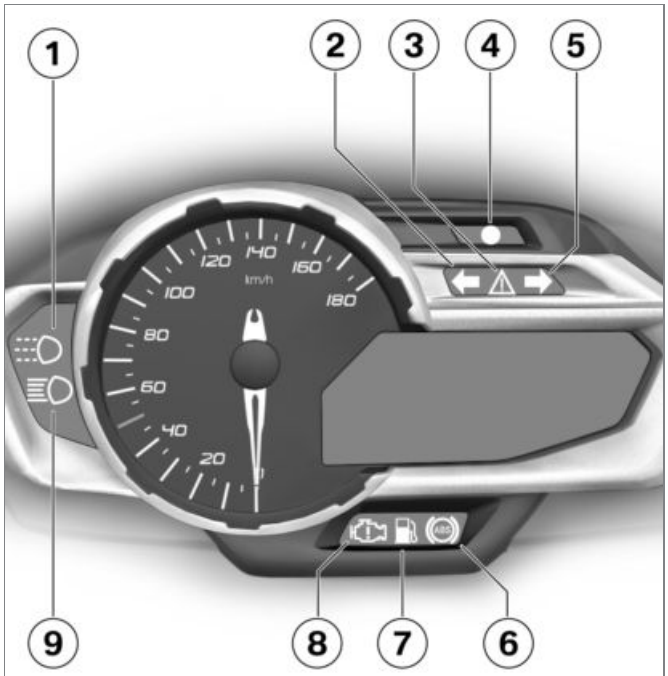
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Multifunction display

1 Fuel-gauge reading
2 – with seat heating OE
Indicator for seat-heating stage (➠ 45)
3 Text box for warnings (➠ 24)
4 Warning symbols (➠ 24)
5 Odometer and tripmeters (➠ 41)
Service-due indicator (➠ 22)
Distance covered since fuel dropped to reserve (➠ 23)
6 Stowage space open (➠ 48)
7 Rev. counter
8 On-board computer readings (➠ 40)
9 Clock (➠ 39)
10 – with heated handlebar grips OE
Indicator for grip-heating stage (➠ 44)





Warning and telltale lights

1 – with daytime riding lights OE
Telltale light for daytime riding lights (➠ 42)

2 Telltale light for left turn indicators

3 General warning light (➠ 24)

4 Telltale light for anti-theft alarm (see operating instructions for the anti-theft alarm)

5 Telltale light for right turn indicators

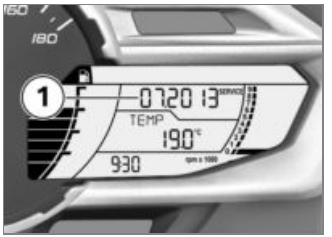
6 ABS warning light (➠ 30)

7 Warning light for fuel down to reserve (➠ 29)

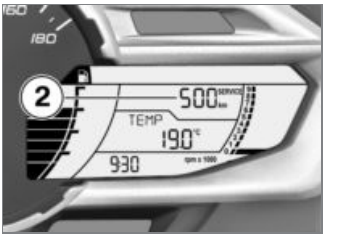
8 Warning light for engine electronics (➠ 29)

9 High-beam headlight telltale light

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. In this example the reading means "July 2013".

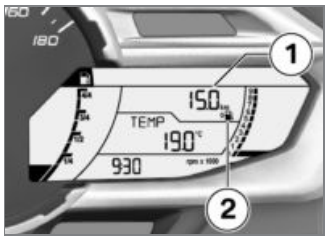


If the vehicle covers long distances in the course of the year, under certain circumstances it might be necessary to have it serviced at a date in advance of the forecast due date. If the countdown distance to the odometer reading at which a service will be due is less than 1000 km, the distance is counted down in steps of 100 km **2** and is shown briefly after the Pre-Ride Check completes.

If service is overdue, the due date or the odometer reading at which service was due is accompanied by the 'General' warning light showing yellow. The word "Service" remains permanently visible.

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

Kilometres travelled after fuel down to reserve



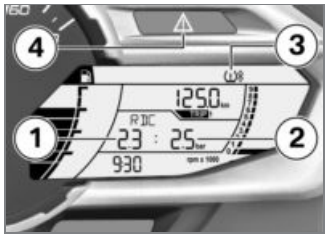
When reaching the fuel reserve the kilometres travelled since this time **1** are displayed with the symbol **2**. This counter is reset and the reading disappears as soon as refuelling brings the total quantity of fuel in the tank back above the reserve level.

Ambient temperature

If ambient temperature drops below 3 °C the temperature display flashes to draw your attention to the risk of black ice forming. The display automatically switches from any other mode to the temperature reading when the temperature drops below this threshold for the first time.

Tyre pressures

– with tyre pressure monitoring (RDC) OE



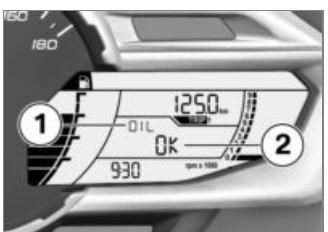
The tyre-pressure readings are based on a reference tyre temperature of 20 °C. The front tyre pressure is on the left **1**; the reading on the right **2** is the rear tyre pressure. "**– – : – –**" appears directly after the ignition is switched on, because the sensors do not transmit tyre pressures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

If "General" warning light **4** flashes red, accompanied by symbol **3**, the reading is a warning. The top arrow beside

the tyre symbol indicates a problem with the front wheel, the bottom arrow indicates a problem with the rear wheel.

The detailed description of BMW Motorrad RDC starts on page (➠ 66).

Oil level



Oil-level indicator **1** gives you an indication of the engine oil level. You can call up this reading only when the vehicle is at a standstill.

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

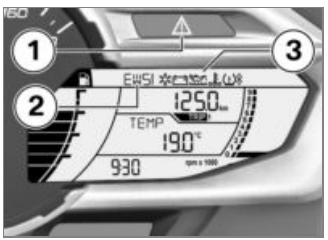
The meanings of the readings that can appear at position **2** are as follows:
OK: Oil level is correct.
CHECK: Check the oil level the next time you stop for fuel.
– – –: Oil level cannot be measured (conditions as stated above not satisfied).

The appropriate warning symbol shows if the oil level is too low.

Warnings

Mode of presentation

Warnings are indicated by the corresponding warning lights.



Warnings for which there is no dedicated warning light are indicated by 'General' warning light **1** showing in combination with a warning text such as **2** or one of the warning symbols **3** appearing in the multifunction display. The 'General' warning light shows red or yellow, depending on the urgency of the warning.

If two or more warnings occur at the same time, all the appropriate warning lights and warning symbols appear, alternating with warning words as applicable. The possible warnings are listed on the next page.

Warnings, overview

Warning and telltale lights	Warning symbols on the display	Meaning
 Lights up yellow	EWS ! appears on the display	Electronic immobiliser active (➠ 29)
 Lights up		Fuel down to reserve (➠ 29)
 Appears on the display		Engine in emergency-operation mode (➠ 29)
 Lights up yellow	 Appears on the display	Engine-oil level too low (➠ 29)
	OIL CHECK appears on the display	
 Flashes		ABS self-diagnosis not completed (➠ 30)
 Lights up		ABS fault (➠ 30)

Warning and telltale lights	Warning symbols on the display	Meaning
 Lights up yellow	 + LAMP ! appears on the display	Rear light defective (➠ 30)
 Lights up yellow	 + LAMP ! appears on the display	Headlight bulb defective (➠ 30)
 Lights up yellow	 + LAMP ! appears on the display	Rear light and headlight bulb defective (➠ 31)
 Lights up yellow	 Appears on the display	Rear stowage compartment open (➠ 31)
	 Appears on the display	Ice warning (➠ 31)
 Flashes red	 Appears on the display	Tyre pressure, front, outside permitted tolerance (➠ 32)
	The critical tyre pressure flashes.	
 Flashes red	 Appears on the display	Tyre pressure, rear, outside permitted tolerance (➠ 32)
	The critical tyre pressure flashes.	

Warning and telltale lights	Warning symbols on the display	Meaning
 Flashes red	 Appears on the display	Tyre pressure, both tyres, outside permitted tolerance (➠ 33)
	the tyre pressure readings flash.	
	"– –" or "– – : – – " is displayed.	Signal transmission disrupted (➠ 34)
 Lights up yellow	 Appears on the display	Sensor defective or system error (➠ 34)
	"– –" or "– – : – – " is displayed.	
 Lights up yellow	RDC ! appears on the display	Battery of tyre-pressure sensor weak (➠ 35)
	DWA ! appears on the display	Anti-theft alarm battery weak (➠ 35)
 Lights up yellow	DWA ! appears on the display	Anti-theft alarm battery flat (➠ 35)

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.
- Use the reserve key.
- Have the defective key replaced, preferably by an authorised BMW Motorrad dealer.

Fuel down to reserve


The reserve-fuel symbol lights up.


A shortage of fuel can result in misfires. This can cause the engine to switch off unexpectedly (risk of accident) and damage the catalytic converter.
Do not run the fuel tank dry.◀

Possible cause:

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

	Fuel reserve
– approx. 3 l	

- Refuelling (➠ 58).

Engine in emergency-operation mode


Engine symbol appears on the display.


The engine is running in emergency operating mode. Unusual engine response is a possibility.
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 power might not be available.
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Engine-oil level too low


General warning light shows yellow.


Oil-level symbol appears on the display.

OIL CHECK appears on the display.

Possible cause:

The electronic oil-level sensor has registered an excessively low oil level. Check the engine-oil level with the dipstick the next time you stop to refuel:

- Checking engine oil level (➠ 76).

If the oil level is too low:

- Top up the engine oil.

ABS self-diagnosis not completed



ABS warning light flashes.

Possible cause:

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

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

ABS fault



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 (➠ 65).
- Have the fault rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Rear light defective



General warning light shows yellow.



+ LAMP ! appears on the display.

Possible cause:

Rear light defective.

- The LED rear light must be replaced. Consult a specialist workshop, preferably an authorised BMW Motorrad dealer.

Headlight bulb defective



General warning light shows yellow.



+ LAMP ! appears on the display.



A defective bulb on the Scooter places your safety at risk because it is easier for other users to oversee the vehicle.

Replace defective bulbs as soon as possible; always carry a

complete set of spare bulbs if possible.◀

Possible cause:

Low-beam or high-beam headlight defective.

- Replacing low-beam and high-beam headlight bulb (➠ 94).

Possible cause:

– without daytime riding lights OE

Parking light defective.

- Replacing parking-light bulb (➠ 95).

Possible cause:

– with daytime riding lights OE

Parking light defective.

- The LED parking light must be replaced. Consult a specialist workshop, preferably an authorised BMW Motorrad dealer.

Rear light and headlight bulb defective


General warning light shows yellow.


+ LAMP ! appears on the display.

Possible cause:

The rear light and a headlight bulb are defective.

- See the fault descriptions above.

Rear stowage compartment open


General warning light shows yellow.


The stowage-compartment symbol appears on the display.

Possible cause:

The stowage compartment underneath the seat is open.


Risk of accident if stowage compartment left open when travelling!

If this warning appears when travelling, stop as soon as it is safe to do so and check that the stowage compartment is locked. Do not travel with the stowage compartment open!◀

- Close the stowage compartment.

Ice warning


Ice-crystal symbol appears on the display.

Possible cause:

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


The outside temperature warning does not mean that there is no risk of black ice forming at measured temperatures above 3 °C.

Always take extra care when temperatures are low; remember

that the danger of black ice forming is particularly high on bridges and where the road is in shade.◀

- Ride carefully and think well ahead.

Tyre pressure, front, outside permitted tolerance

– with tyre pressure monitoring (RDC)[OE]

 General warning light flashes red.

 Tyre symbol with arrow pointing up appears on the display.

The critical tyre pressure flashes. Possible cause:

Measured tyre pressure in the front tyre is outside permitted tolerance.

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

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

 Incorrect tyre pressures impair the Scooter's handling characteristics.

If tyre pressure is incorrect it is essential to adapt your style of riding accordingly.◀

- Correct the tyre pressure at the earliest possible opportunity.

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

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

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

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

Tyre pressure, rear, outside permitted tolerance

– with tyre pressure monitoring (RDC)[OE]

 General warning light flashes red.

 Tyre symbol with arrow pointing down appears on the display.

The critical tyre pressure flashes. Possible cause:

Measured tyre pressure in the rear tyre is outside permitted tolerance.

- Check the tyre for damage and to ascertain whether the

vehicle can be ridden with the tyre in its present condition.

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

 Incorrect tyre pressures impair the Scooter's handling characteristics.

If tyre pressure is incorrect it is essential to adapt your style of riding accordingly.◀

- Correct the tyre pressure at the earliest possible opportunity.

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

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

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

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

Tyre pressure, both tyres, outside permitted tolerance

– with tyre pressure monitoring (RDC)[OE]

 General warning light flashes red.

 Tyre symbol with arrows pointing up and down appears on the display.

The tyre pressure readings flash. Possible cause:

Measured tyre pressure in both tyres is outside permitted tolerance.

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

If the vehicle can be ridden with the tyres in the present condition:

 Incorrect tyre pressures impair the Scooter's handling characteristics.

If tyre pressure is incorrect it is essential to adapt your style of riding accordingly.◀

- Correct the tyre pressure at the earliest possible opportunity.

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

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

If you are unsure whether the vehicle can be ridden with the tyres in the present condition:
- Do not continue your journey.
- Notify the breakdown service.

Signal transmission disrupted

– with tyre pressure monitoring (RDC)[OE]

"––" or "––:––" is displayed.

Possible cause:

The vehicle has not yet accelerated past the threshold of approximately 30 km/h. The RDC sensors do not start transmitting signals until the vehicle reaches a speed above this threshold for the first time (➠ 66).
- Increase speed above this threshold and observe the RDC readings. Assume that a permanent fault has not occurred unless the 'General' warning light comes on to accompany the symptoms. Under these circumstances:
- Have the fault rectified by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Possible cause:

Wireless communication with the RDC sensors has been disrupted. Possible causes include radio-communication systems operating in the vicinity and interfering with the link between the RDC control unit and the sensors.
- Move to another location and observe the RDC readings. Assume that a permanent fault has not occurred unless the 'General' warning light comes on to accompany the symptoms. Under these circumstances:
- Have the fault rectified by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Sensor defective or system error

– with tyre pressure monitoring (RDC)[OE]


General warning light shows yellow.


Tyre symbol appears on the display.

"––" or "––:––" is displayed.

Possible cause:

Vehicle is fitted with wheels not equipped with RDC sensors.
- Fit wheels and tyres equipped with RDC sensors.

Possible cause:

One or two RDC sensors have failed.
- Have the fault rectified by a specialist workshop, preferably

an authorised BMW Motorrad dealer.

Possible cause:

A system error has occurred.

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

Battery of tyre-pressure sensor weak

– with tyre pressure monitoring (RDC) OE



General warning light shows yellow.

RDC ! appears on the display.



This error message appears only briefly after the pre-ride check completes.◀

Possible cause:

The integral battery in the tyre-pressure sensor has lost a significant proportion of its original capacity. There is no assurance of how long the tyre pressure control system can remain operational.

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

Anti-theft alarm battery weak

– with anti-theft alarm (DWA) OE

DWA ! appears on the display.



This error message appears only briefly after the pre-ride check completes.◀

Possible cause:

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

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

Anti-theft alarm battery flat

– with anti-theft alarm (DWA) OE



General warning light shows yellow.

DWA ! appears on the display.



This error message appears only briefly 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.

Operation

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Ignition switch/steering lock

Keys

You receive two vehicle keys.

– with topcase[OA]

If you wish you can arrange to have the topcase fitted with a lock that can be opened with the same key. Consult a specialist workshop, preferably an authorised BMW Motorrad dealer.

Switching on ignition



- Turn the key to the **ON** position.
- » Parking lights and all function circuits switched on.
- » Engine can be started.
- » Pre-ride check is performed. (➠ 54)
- » ABS self-diagnosis is performed. (➠ 54)

Switching off ignition



- Turn the key to the **OFF** position.
- » The lights are switched off, the side light and light on the rear stowage compartment remain illuminated briefly.
- » Handlebars not locked.
- » Key can be removed.

Locking handlebars

- Turn the handlebars all the way to left

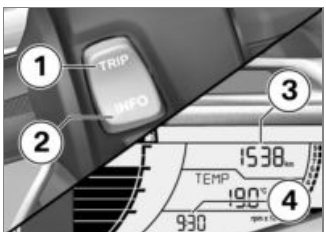


- Turn the key to position **3**, while moving the handlebars slightly.
- » Ignition, lights and all function circuits switched off.
- » Handlebars locked.
- » Left stowage compartment locked.
- » Key can be removed.

Date and time

Setting time

- Switch off the engine and switch on the ignition.



- Repeatedly press button **1** (TRIP) until odometer reading **3** appears on the display.
- Press and hold down button **1** (TRIP) until the first time value **4** to be changed starts to flash.
- Set the flashing value by pressing buttons **1** (TRIP) and **2** (INFO).
- Press and hold down button **1** (TRIP) until the next value starts to flash.
- Set the flashing value by pressing buttons **1** (TRIP) and **2** (INFO).
- Press and hold down button **1** (TRIP) until the reading stops flashing.

» This completes the process.

You can exit the process at the end of each step:

- Without pressing any buttons, wait until the reading stops flashing.

» The settings already made are accepted.

Setting date and time

- Switch off the engine and switch on the ignition.

Date and time are set one immediately after the other.◀



- Repeatedly press button **2** (INFO) until the date **3** appears on the display.

The sequence in which day, month and year are shown can vary from country to country.◀

- Press and hold down button **2** (INFO) until the first date value **3** to be changed starts to flash.
- Set the flashing values by pressing buttons **1** (TRIP) and **2** (INFO).

- Press and hold down button **2** (INFO) in each case until the next value starts to flash.
- After setting the time, press and hold down button **2** (INFO) until the reading stops flashing.

» This completes the process.

You can exit the process at the end of each step:

- Without pressing any buttons, wait until the reading stops flashing.

» The settings already made are accepted.

Reading

Selecting readings

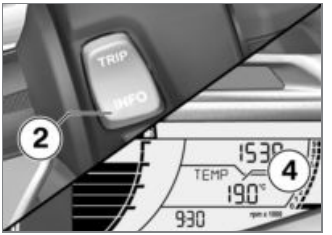
- Switch on the ignition.



- Press button **1** (TRIP) to select the reading in panel **3**.

The following values can be displayed:

– Total distance covered
– Tripmeter 1 (Trip 1)
– Tripmeter 2 (Trip 2)
– The 'automatic' tripmeter (Trip A) is reset automatically five hours after the ignition is switched off and the date has changed.
– distance travelled after fuel down to reserve



- Press button **2** (INFO) to select the reading in panel **4**.

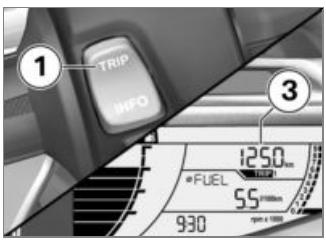
The following values can be displayed:

– Ambient temperature (TEMP)
– Average speed (ØSPEED)
– Average fuel consumption (ØFUEL)
– Current consumption (FUEL)
– Date (Date)
– Oil-level reminder (OIL)
– with tyre pressure monitoring (RDC)[OE]

Tyre pressures (RDC)

Resetting tripmeter

- Switch on the ignition.
- Select a tripmeter.



- Press and hold down button **1** (TRIP) until the tripmeter reading in panel **3** has reset.

Resetting average values

- Switch on the ignition.
- Select average consumption or average speed.



- Press and hold down button **2** (INFO) until the reading in panel **4** has reset.

Lights

Low-beam headlight and sidelights

The side lights switch on automatically when the ignition is switched on.
After switching off the ignition the side light remains illuminated briefly.

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

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

– with daytime riding lights OE

In daytime the daytime riding lights can be switched on as an alternative to the low-beam headlight.

High-beam headlight and headlight flasher



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

Parking light

- Switch off the ignition.



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

Daytime riding lights

– with daytime riding lights OE

- Start the engine.



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

The daytime riding lights symbol appears on the display.

» The low-beam headlight and the background lighting of the instrument panel are switched off.

- In the dark or in tunnels: Press button **1** again to switch off the daytime riding lights and switch on the low-beam headlight.

By comparison with the low-beam headlight, the daytime riding lights make the

vehicle more visible to oncoming traffic. This improves daytime visibility.◀

Turn indicators

Operating flashing turn indicators

- Switch on the ignition.



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

Hazard warning flashers

Operating hazard warning flashers

- Switch on the ignition.

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

If you press a turn-indicator button with the ignition 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.◀



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

» Ignition can be switched off.

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

Emergency off switch (kill switch)



1 Emergency off switch (kill switch)

Operating the kill switch when riding can cause the rear wheel to lock and thus cause a fall.
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)

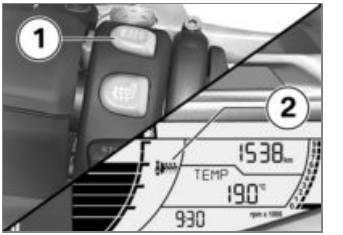
Grip heating

– with heated handlebar grips OE

Operating grip heating

• Start the engine.

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



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

The grips can be heated with two-stage manual heating or automatic heating. The second manual stage is for heating the grips quickly: it is advisable to switch back to stage one as soon as the grips are warm. The following can be displayed:

Heating power is controlled automatically as a function of ambient temperature, road speed and engine rpm

100 % heating power

50 % heating power

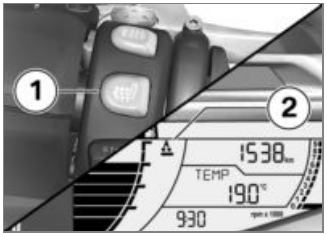
Seat heating

– with seat heating OE

Operating front-seat heating

• Start the engine.

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



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

The front seat can be heated with two-stage manual heating or automatic heating. The second manual stage is for heating the seat quickly: it is advisable to switch back to stage one as soon as the seat is warm. The following can be displayed:

A Heating power is controlled automatically as a function of ambient temperature, road speed and engine rpm

100 % heating power

50 % heating power

Operating rear-seat heating

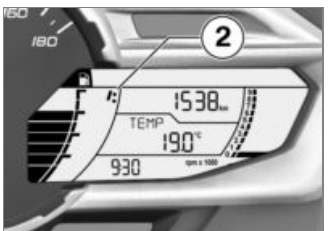
• Start the engine.

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



• Press the side of button **1** with two dots to switch the heating to HIGH.

- Press the side of button **1** with one dot to switch the heating to LOW.
- Centre button **1** to switch off the seat heating.



The stage you select is indicated by the symbol in the multifunction display **2**. Stage two is for heating the seat quickly: it is advisable to switch back to stage one as soon as the seat is warm. The following can be displayed:

50 % heating power

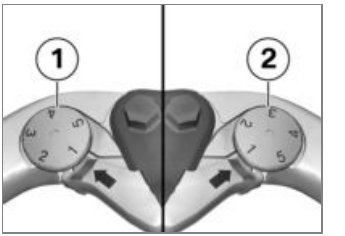
100 % heating power

Brakes

Adjusting handbrake lever

Changing the position of the brake-fluid reservoir can allow air to penetrate the brake system.
Do not twist the handlebar fitting or the handlebars.◀

Attempting to adjust the handbrake lever while riding the vehicle can lead to accidents.
Do not attempt to adjust the handbrake lever unless the Scooter is at a standstill.◀



- Turn adjusting screw **1** of the left brake lever or adjusting screw **2** of the right brake lever to the desired position.

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

» Adjustment options:
– From position 1: widest span between handlebar grip and clutch lever
– to position 5: narrowest span between handlebar grip and handlebar lever

Mirrors

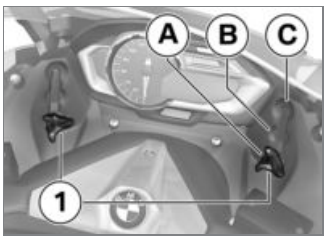
Adjusting mirrors



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

Windscreen

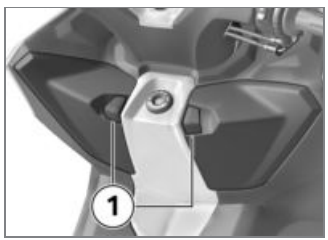
Adjusting windscreen



- Slacken clamping screws **1** on left and right until the windscreen can be adjusted easily.
- Move the windscreen to desired position **A**, **B**, or **C**.
- Make sure that the windscreen settings are the same on left and right.
- Tighten the clamping screws on left and right.

Stowage compartments

Using front stowage compartments



- To open a stowage compartment, pull appropriate release lever **1** to the rear.
- To close a stowage compartment, press the lid until it latches shut.

▷ The left stowage compartment is locked along with the steering.◀

Operating rear stowage compartment (BMW Flexcase)

- Open the seat.

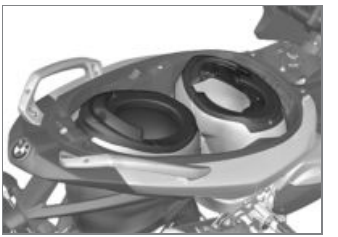
The stowage compartment light switches on when switching on the ignition. After switching off the ignition the stowage compartment light remains illuminated briefly.◀



- Pull release lever **1** forward to increase the size of the stowage compartment, for example to accommodate helmets.

» Base **2** moves lower.

» It is not possible to start the vehicle with the base lowered.



- To stow two helmets in the stowage compartment, position the helmets as shown here.



- To close the stowage compartment, remove everything from the stowage compartment and use lever **3** to pull the base up until it latches in the raised position.
- Close the seat.

Spring preload

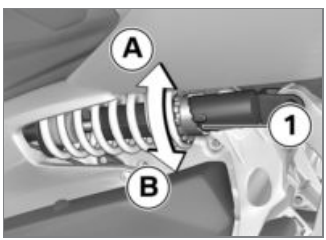
Setting

It is essential to set spring preload of the rear suspension to suit the load carried by the Scooter. 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 Scooter on its stand.



- If you want to increase spring preload, use the tool from the on-board toolkit to turn adjusting ring **1** in direction **A** as indicated by the arrow.
- If you want to reduce spring preload, use the tool from the on-board toolkit to turn adjusting ring **1** in direction **B** as indicated by the arrow.

Basic setting of spring preload, rear
– increase 4 clicks from the lowest preload setting (Full load of fuel, with rider 85 kg)

Tyres

Checking tyre pressure

Incorrect tyre pressures impair the Scooters's handling characteristics and increase the rate of tyre wear.
Always check that the tyre pressures are correct.◀

At high road speeds, tyre valves installed perpendicular to the wheel rim have a tendency to open as a result of centrifugal force.
In order to avoid a sudden loss of tyre pressure, fit a valve cap with rubber sealing ring to the rear tyre and make sure that the cap is screwed on firmly.◀

- Make sure the ground is level and firm and place the Scooter on its stand.
- Check tyre pressures against the data below.

Tyre pressure, front
– 2.4 bar (Tyre cold)

Tyre pressure, rear
– 2.5 bar (one-up, tyre cold)
– 2.9 bar (two-up and/or with luggage, tyre cold)

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

Headlight

Adjusting headlight for driving on left/driving on right

This vehicle has a symmetric-beam low-beam headlight. If the vehicle 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.

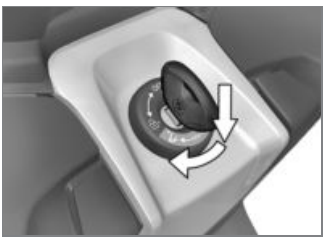
Headlight beam throw and spring preload

Headlight beam throw is generally kept constant when spring preload is adjusted to suit load. Consult a specialist workshop, preferably an authorised BMW Motorrad dealer, if you are unsure whether the headlight beam-throw setting is correct.

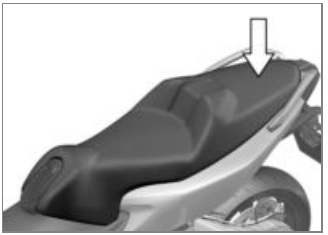
Seat

Opening/closing seat

- Switch off the ignition.



- Push the ignition key down and turn it clockwise.



- If the action is stiff press down on the seat at the rear to ease it and then lift it slightly at the rear.
- To close, press the rear of the seat down until it latches shut.

Riding

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Securing vehicle for transportation 59

Safety instructions

Rider's equipment

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

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

Loading

Overloading and imbalanced loads can adversely affect the Scooter's handling. Do not exceed the permissible gross weight and be sure to comply with the instructions on loading.◀

• Adjust spring preload and tyre pressures to suit total weight.
– with luggage carrier OA
• Note the maximum permissible payload of the luggage carrier.

Payload of luggage carrier
– max 9 kg◁

– with topcase OA
• Note the maximum permissible payload of the topcase and the speed limit for riding with a topcase on the vehicle.

Payload of topcase
– max 5 kg

Maximum permissible speed for riding with topcase fitted to the motorcycle
– max 130 km/h◁

Speed

If you ride at high speed, always bear in mind that various boundary conditions can adversely affect the handling of your Scooter:
– Settings of the spring-strut and shock-absorber system
– Imbalanced load
– Loose clothing
– Insufficient tyre pressure
– Poor tyre tread
– Etc.

Risk of poisoning

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

Inhaling the exhaust fumes therefore represents a health hazard and can even cause loss of consciousness with fatal consequences.
Do not inhale exhaust fumes.
Do not run the engine in an enclosed space.◀

Risk of burn injury

Engine and exhaust system become very hot when the vehicle is in use. There is a risk of burn injuries by contact with hot surfaces, particularly at the silencer.
When you park the Scooter make sure that no-one comes into contact with the engine and exhaust system.◀

Catalytic converter

If misfiring causes unburned fuel to enter the catalytic converter, there is a danger of overheating and damage.
For this reason, observe the following points:
– 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.

Unburned fuel will destroy the catalytic converter.
Note the points listed for protection of the catalytic converter.◀

Risk of overheating

Cooling would be inadequate if the engine were allowed to idle for a lengthy period with the motorcycle at a standstill: overheating would result. In extreme cases, the motorcycle could catch fire.
Do not allow the engine to idle unnecessarily. Ride away immediately after starting the engine.◀

Tampering

Tampering with the Scooter's settings (e.g. electronic engine management unit, throttle valves, clutch) can cause damages to the components in question and lead to failure of safety-relevant functions. Damage caused in this way is not covered by the warranty.
Do not tamper with the vehicle in any way that could result in tuned performance.◀

Checklist

Use the following checklist to check important functions, settings and wear limits before you ride off.
– Brakes
– Brake fluid levels for front-wheel and rear-wheel brakes
– Spring preload
– Tyre-tread depth and tyre pressures
– Security of the luggage

At regular intervals:

– Engine oil level (every refuelling stop)
– Brake-pad wear (every third refuelling stop)

Starting

Starting engine

- Switch on the ignition.
» Pre-ride check is performed. (➠ 54)
» ABS self-diagnosis is performed. (➠ 54)
- Operate the brake.



- Press starter button **1**.

The vehicle cannot be started while the side stand is extended. Extending the side stand while the engine is running kills the engine.◀

» The engine starts.
» Consult the troubleshooting chart below if the engine refuses to start. (➠ 110)

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 Pre-Ride-Check The test is aborted if you start the engine before it completes.

Phase 1

The speedometer needle swings to the limit value on its scale, the telltale and warning lights show.

Phase 2

The speedometer needle swings back to its original position. The telltale and warning lights go out.

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

Some malfunctions cannot be indicated if one of the warning lights fails to show. Make sure that all the warning and telltale lights come on in the pre-ride check.◀

- 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

Scooter has to move forward a few metres for the wheel sensors to be tested.

Phase 1

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



ABS warning light flashes.

Phase 2

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



ABS warning light flashes.

ABS self-diagnosis completed

» The ABS warning light goes out.

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

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

Riding

At engine speeds below pullaway rpm (approx. 2000 rpm) the centrifugal clutch remains disengaged, the Scooter is in neutral.When engine speed increases past pullaway rpm the clutch engages and the Scooter moves off.

At speeds from approx. 50 km/h to approx. 110 km/h the engine is running at constant speed and operating in its maximum torque band. Road speed is varied by the change in transmission ratio in the continuously variable transmission. Consequently, engine noise changes only slightly within this speed range.
Engine speed does not increase unless the vehicle is brought up a speed higher than approx. 110 km/h.

Running in

Engine

- Until the first inspection, vary the throttle opening range frequently.
- Try to do most of your riding during this initial period on twisting, fairly hilly roads, avoiding high-speed main roads and highways if possible.
- Do not omit the first inspection after 500 - 1200 km.

Brake pads

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

New brake pads can extend stopping distance by a significant margin.
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.

New tyres do not provide full grip straight away. Wet roads and extremely sharp inclines pose a risk of accident.
Ride carefully and avoid extremely sharp inclines.◀

Brakes

How can stopping distance be minimised?

Load distribution shifts dynamically between the front and rear wheels when the vehicle brakes. The sharper the vehicle decelerates, the more load is shifted to the front wheel. The higher the wheel load, the more braking force can be transmitted without the wheel locking.
To optimise stopping distance, apply the front brakes rapidly and keep on increasing the force you apply to the brake lever. This makes the best possible use of the dynamic increase in load at the front wheel. In the "panic braking situations" that are trained so frequently braking force is applied as rapidly as possible and with the rider's full force applied to the brake levers; under these circumstances the dynamic shift in load distribution cannot keep pace with the increase in deceleration and the tyres cannot transmit the full braking force to the surface of the road. Under these circumstances the front wheel can lock up.

BMW Motorrad ABS prevents the front wheel from locking up.

Descending mountain passes

There is a danger of the brakes fading if you use only the rear brakes when descending mountain passes. Under extreme conditions, the brakes could overheat and suffer severe damage.
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 vehicle 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.

Wetness and dirt result in poor braking efficiency.
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.◀

Scooter Parking

Side stand

- Switch off the engine.

If the ground is soft or uneven, there is no guarantee that the motorcycle will rest firmly on the stand.
Always check that the ground under the stand is level and firm.◀

- Extend the side stand and prop the Scooter on the stand.

» The parking brake prevents the vehicle from rolling away.

The side stand is designed to support only the weight of the Scooter.
Do not lean or sit on the Scooter with the side stand extended.◀

- If the camber of the roadway permits, turn the handlebars all the way to the left.

Centre stand

- Switch off the engine.

If the ground is soft or uneven, there is no guarantee that the motorcycle will rest firmly on the stand.
Always check that the ground under the stand is level and firm.◀

Excessive movements could cause the centre stand to retract, and the vehicle would topple in consequence.
Do not lean or sit on the Scooter with the centre stand extended.◀

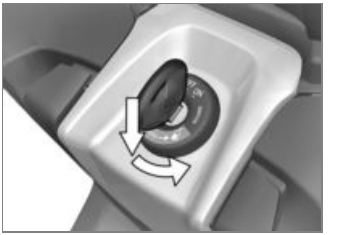
- Extend the centre stand and lift the Scooter on to the stand.

Refuelling

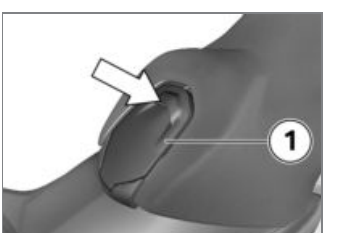
Fuel is highly flammable. A naked flame close to the fuel tank can cause a fire or explosion.
Do not smoke. Never bring a naked flame near the fuel tank.◀

Fuel attacks plastics, which become dull or unsightly. Wipe plastic parts immediately after contact with fuel.◀

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



- Centre the ignition key, push it down and turn it counter-clockwise.



- If it is hard to open, push fuel-tank cover **1** to the rear then flick it forward to open.



- Open fuel filler cap **2**.



Fuel expands when hot. Fuel escaping from an overfilled tank could make its way onto the road surface. This could cause a fall.

Do not overfill the fuel tank.◀

Leaded fuel will destroy the catalytic converter.
Use only unleaded fuel.◀

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

If filling occurs after the fuel level has gone below the reserve limit, the amount filled must be greater than the reserve amount for the new fuel level to be recognised and the warning light to switch off.◀

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

Usable fuel capacity
– approx. 16 l

Fuel reserve
– approx. 3 l



- Close fuel filler cap **2**.



- Push fuel-tank cover **1** until it latches shut.

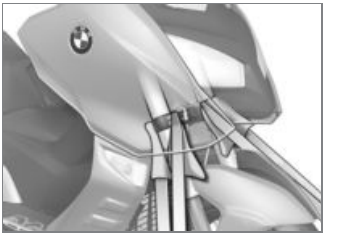
Securing vehicle for transportation

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



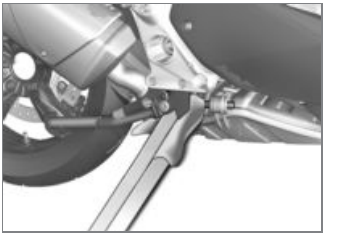
The Scooter can topple and fall on its side.
Secure Scooter against toppling; this is best done with the support of a 2nd person.◀

- Push the vehicle on to the transportation flat and hold it in position: do not place it on the side stand or centre stand.

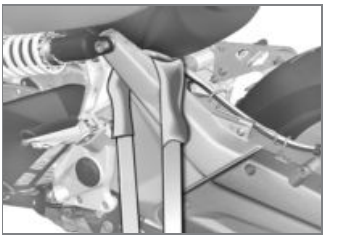


Risk of damaging components.
Take care not to trap components such as brake lines or wires.◀

- At the front, loop a strap over the bottom fork bridge on each side and tighten.



- At the rear right, loop the strap round the mount of the silencer and tighten.



- At the rear left, loop the strap round the spring strut mount and tighten.

- Tighten all the straps uniformly; the vehicle's suspension should be compressed as tightly as possible front and rear.

Engineering details

Brake system with BMW Motorrad ABS 64

Tyre pressure monitoring RDC 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 hat include the coefficient of friction of the road surface. Loose stones, ice and snow or a wet road all have much lower coefficients of friction than a clean, dry asphalt surface. The lower the coefficient of friction, the longer the braking distance.

If the rider increases braking pressure to the extent that braking force exceeds the maximum 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, so the wheels continue to turn and directional stability is maintained irrespective of the condition of the road surface.

What are the effects of surface irregularities?

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

Rear wheel lift

Even under severe braking, a high level of tyre grip can mean that the front wheel does not lock up until very late, if at all. Consequently, ABS does not intervene until very late, if at all. Under these circumstances the rear wheel can lift off the ground, and the outcome can be a highsiding situation in which the Scooter can flip over.


Severe braking can cause the rear wheel to lift off the ground.

When you brake, 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, BMW Motorrad ABS ensures directional stability on any surface. The system is not optimised for special requirements that apply under extreme competitive situations off-road or on the track.

Special situations

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

Exceptional riding conditions:

- 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 (burnout).
- 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 as outlined above, you can reactivate the ABS function by switching the ignition off and on again.

What significance devolves on regular maintenance?

Invariably, a technical system cannot perform beyond the abilities dictated by its level of maintenance.
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.
Take care when cornering. When you apply the brakes on a corner, the vehicle's weight and mo-

mentum take over and even BMW Motorrad ABS is unable to counteract their effects.

Tyre pressure monitoring RDC

– with tyre pressure monitoring (RDC) OE

Function

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

Temperature compensation

Tyre pressure is a temperature-sensitive variable: pressure increases as tyre temperature rises and decreases as tyre temperature drops. Tyre temperature depends on ambient temperature, on the style of riding and the duration of the ride.

The tyre-pressure readings shown by the multifunction display are temperature-compensated; the reference tyre temperature for these readings is always 20 °C. The air lines available to the public in petrol stations and motorway service areas have gauges that do not compensate for temperature; the reading shown by a gauge of this nature is the temperature-dependent tyre pressure. In most instances, therefore, these gauge readings will not tally with the pressures shown by the multifunction display.

Pressure adaptation

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

Example: According to the Rider's Manual, tyre pressure should be 2,5 bar, but the reading in the multifunction display is 2,3 bar, so pressure is low by 0,2 bar.
The gauge on the air line shows 2,4 bar. You must now increase tyre pressure by the 0,2 bar difference between the value in the table and the RDC reading; when the air-line gauge shows 2,6 bar, the tyre is inflated to the correct pressure.

Accessories

General instructions 70
Power sockets 70
Topcase 71
Scooter Lock 73

General instructions

BMW Motorrad recommends the use of parts and accessories for your vehicle that are approved by BMW for this purpose.
Genuine BMW parts and accessories and other products which BMW has approved can be obtained from your authorised BMW Motorrad dealer, together with expert advice on their installation and use.
These parts and products have been tested by BMW for safety, function and suitability. BMW accepts product liability for them. Conversely, BMW is unable to accept any liability whatsoever for parts and accessories which it has not approved.
Also bear in mind the information on the effect of wheel size on the anti-lock brake system ABS (➠ 86).

BMW Motorrad cannot examine or test each product of outside origin to ensure that it can be used on or in connection with BMW Scooters 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 Scooters and, consequently, they are not sufficient in some circumstances. Use only parts and accessories approved by BMW for your Scooter.◀

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.

Power sockets

Notes on use of power sockets:

Operating electrical accessories

Battery capacity is not monitored while one or more sockets are in use. Running add-on devices for a lengthy period without the engine running can completely drain the battery. Under these circumstances there is no guarantee that the Scooter will start.

Cable routing

The cables from the power sockets to the auxiliary devices must be routed in such a way that they:
– Do not impede the rider
– Do not restrict the steering angle or obstruct handling
– Cannot be trapped

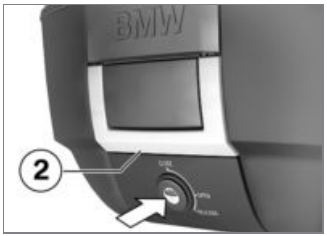
Topcase

– with topcase [OA]

Opening topcase



- Turn the key to the OPEN position in topcase lock **1**.



- Push the topcase lock forward.

» Topcase handle **2** pops up.



- Pull the release lever behind cover **3** to the rear.

» The lid of the topcase opens.

- Open the topcase lid.

Closing topcase

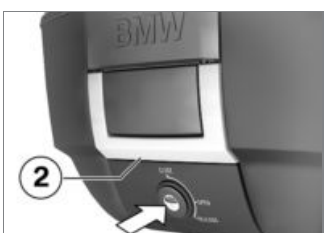


- Make sure that topcase handle **2** is extended.
- Close the topcase lid and push it down until it latches shut. Check that nothing is trapped between the lid and the case.
- Close topcase handle **2**.
- If applicable, turn the key in the topcase lock to the CLOSE position and remove the key from the lock.

Removing topcase



- Turn the key to the OPEN position in topcase lock **1**.



- Push the topcase lock forward.

» Topcase handle **2** pops up.



- Turn the key to the RELEASE position in the topcase lock.
- Pull release lever **4** to the rear and at the same time lift the topcase slightly by means of the carry handle.
- Work the topcase to the rear to remove it from the topcase carrier.

Installing topcase

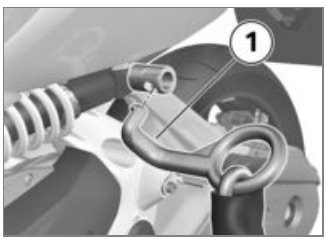


- Make sure that topcase handle **2** is extended and that the key is in the RELEASE position in the topcase lock.
- Seat the topcase in the topcase carrier at the front.
- Pull release lever **4** back; at the same time seat the rear of the topcase in the topcase carrier.
- Close topcase handle **2**.
- If applicable, turn the key in the topcase lock to the CLOSE position and remove the key from the lock.

Scooter Lock

– with Scooter lock OA

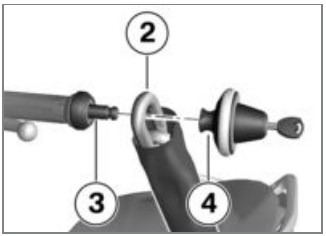
Securing vehicle



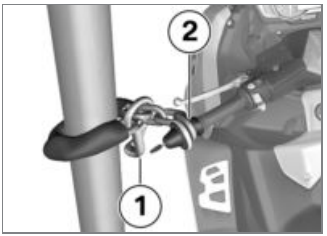
- From below, work the rear endpiece **1** of the Scooter lock into the rear connector.
- Then turn the endpiece forward.



- Turn the handlebars to the left and bring the end of the Scooter lock up to the end of the handlebar.



- Slip first chain link **2** on to handlebar connector **3** and slip locking piece **4** into position.
- Lock the Scooter lock and remove the key.



Alternatively, the Scooter can be secured to a fixed object such as a post.

- Pass the Scooter lock round the post and slip the chain through endpiece **1**. Then secure first chain link **2** to the handlebar as described above.

Maintenance

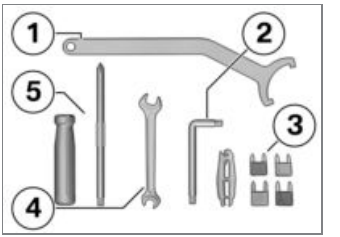
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General instructions

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

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

Standard toolkit



1 Hook wrench
– Adjusting spring preload for rear wheel (➠ 49).

2 Torx wrench, T30
– Checking engine oil level (➠ 76).
– Topping up coolant (➠ 84).

3 Spare fuses with puller tool
Minifuses, 4 A, 7.5 A, 10 A and 15 A
– Replace the fuses.

4 Open-ended spanner
Width across flats 8/10
– Remove the battery (➠ 102).

5 Reversible screwdriver blade
With cross recess and Torx T25
– Remove the body panels.
– Replacing rear turn indicator bulbs (➠ 98).
– Remove the battery (➠ 102).

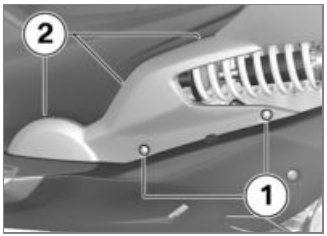
Engine oil

Checking engine oil level

⚠ Oil can collect in the sump if the Scooter is out of use for an extended period of time; this oil has to be pumped into the oil tank before the level is read. The engine oil must be at operating temperature to do this. Checking the oil level with the

engine cold or after no more than a short ride will lead to misinterpretation; this in turn, means that the engine will be operated with the incorrect quantity of oil.
In order to ensure that the engine oil level is read correctly, check the oil level only after a lengthy trip.◄

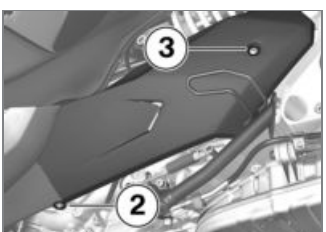
- With the Scooter at operating temperature place it on its centre stand, making sure that the ground is level and firm.
- Allow the engine to idle for one minute.
- Switch off the ignition.



- Remove screws **1**.
- Ease the cover out at the bottom edge and remove. Note the retaining lugs at position **2**
- Extend the side stand.



- Lift footrest plate slightly and remove screw **1**.



- Remove screw **2** and screw **3**.
- Remove the footplate.

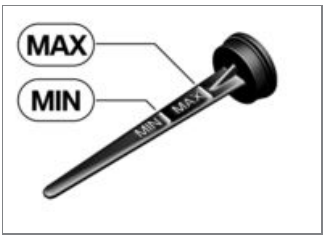
- Wipe the area around the oil filler neck clean.



- Remove oil dipstick **1**.



- Wipe the oil off MIN-MAX part of dipstick **2** with a clean, dry cloth.
- Seat the oil dipstick on the oil filler neck, but do not engage the threads.
- Remove the oil dipstick and check the oil level.



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

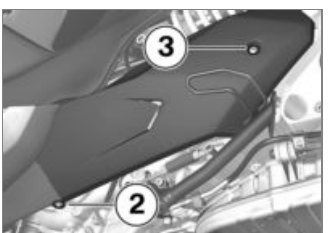
If the oil level is below the MIN mark:

- Top up the engine oil to the specified level.

If the oil level is above the MAX mark:

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

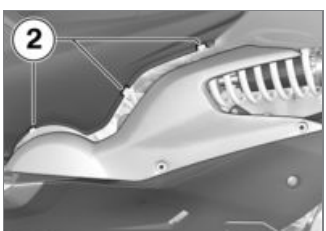
- Install the oil dipstick.



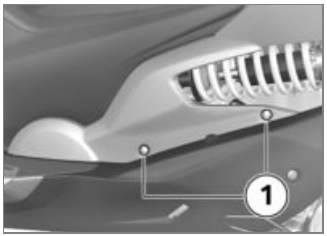
- Hold the footplate in position.
- Install screw **2** and screw **3**.



- Lift footrest plate slightly and install screw **1**.



- Install the cover and engage it at positions **2**.



- Install screws **1**.

Brake system

Checking operation of brakes

- Pull the right brake lever.

» The pressure point must be clearly perceptible.

- Pull the left brake lever.

» The pressure point must be clearly perceptible.

- To test the parking brake, extend the side stand and try to push the Scooter forward and back.

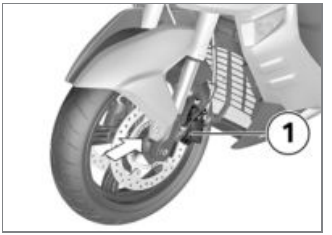
» The Scooter must refuse to move

If a clear pressure point is not perceptible or if the Scooter can be pushed in either direction:

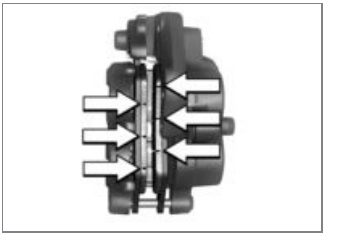
- Have the brakes checked by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Checking front brake pad thickness

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



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



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

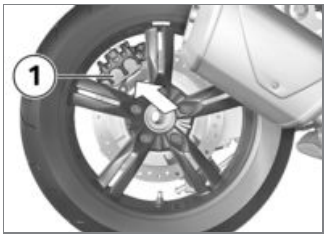
If the wear indicating marks are no longer clearly visible:

Brake pads worn past the minimum permissible thickness can cause a reduction in braking efficiency and under certain circumstances they can cause damage to the brake system.
In order to ensure the dependability of the brake system, do not permit the brake pads to wear past the minimum permissible thickness.◀

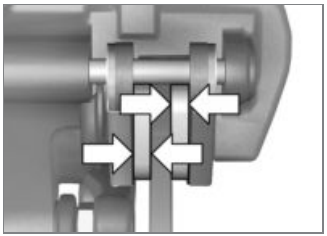
- Have the brake pads replaced by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Checking rear brake pad thickness

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



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



Brake-pad wear limit, rear
– min 1.0 mm (Friction pad only, without backing plate.)

If the wear indicating marks are no longer visible:

⚠ Brake pads worn past the minimum permissible thickness can cause a reduction in braking efficiency and under certain circumstances they can cause damage to the brake system.

In order to ensure the dependability of the brake system, do not permit the brake pads to wear past the minimum permissible thickness.◀

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

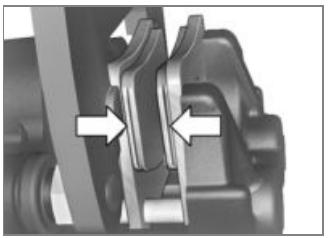
Checking brake-pad thickness, parking brake

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



- Visually inspect the brake pads to ascertain their thickness.

Viewing direction: from the right toward brake pads **1**.



Brake-pad wear limit, parking brake

– min 1.0 mm (The wear indicators (grooves) must be clearly visible.)

If the brake pads are worn past the minimum permissible thickness:

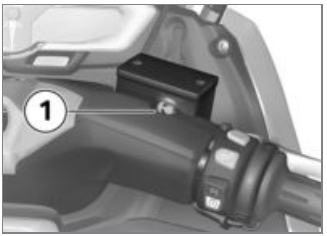
If the brake pads are permitted to wear past the minimum permissible thickness braking performance is reduced and there is the possibility of the Scooter moving even with the side stand extended.
In order to avoid the risk of the Scooter toppling off its stand, do not permit the brake pads to wear past the specified minimum thickness.◀

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

Checking brake-fluid level, front brakes

A low fluid level in the brake reservoir can allow air to penetrate the brake system. This significantly reduces braking efficiency.
Check the brake-fluid level at regular intervals.◀

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



- Check the brake fluid level in sight glass **1** of the right brake-fluid reservoir.

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)

If the brake fluid level drops below the permitted level:

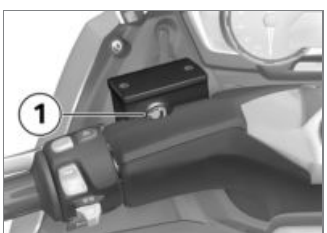
- Have the defect rectified as quickly as possible by a specialist workshop, preferably an authorised BMW Motorrad dealer.

Checking brake-fluid level, rear brakes

A low fluid level in the brake reservoir can allow air to penetrate the brake system. This significantly reduces braking efficiency.

Check the brake-fluid level at regular intervals.◀

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



- Check the brake fluid level in sight glass **1** of the left brake-fluid reservoir.

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



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

If the brake fluid level drops below the permitted level:

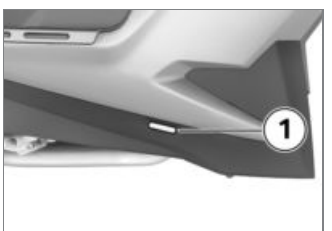
- Have the defect rectified as quickly as possible by a spe-

cialist workshop, preferably an authorised BMW Motorrad dealer.

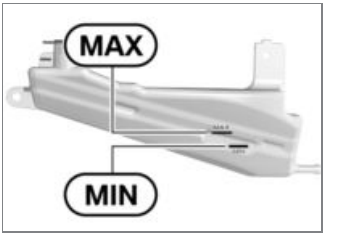
Coolant

Checking coolant level

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



- Check the coolant level in the expansion tank through opening **1** below the right footplate.

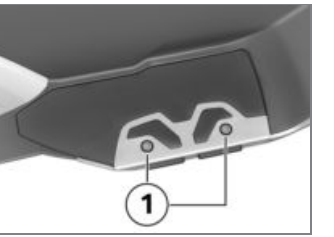


	Specified coolant level in expansion tank
–	Between MIN and MAX marks (engine cold)

If the coolant drops below the permitted level:

- Top up the coolant.

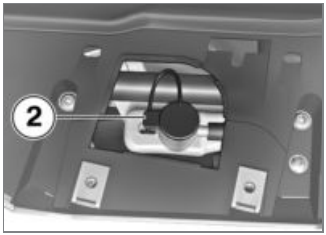
Topping up coolant



- Remove screws **1**.
- Remove the footrest plate.



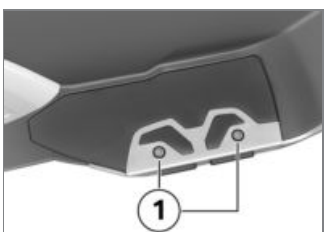
- Open cover **1** and remove.



- Open cap **2** of the coolant expansion tank and top up the coolant to the specified level.
- Check the coolant level (➠ 84).
- Close the cap of the coolant expansion tank.



- Close cover **1**.



- Place the footrest plate in position.
- Install screws **1**.

Rims and tyres

Checking rims

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

Checking tyre tread depth

Your Scooter's handling and grip can be impaired even before the tyres wear to the minimum tyre tread depth permitted by law.
Have the tyres changed in good time before they wear to the minimum permissible tread depth.◀

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

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

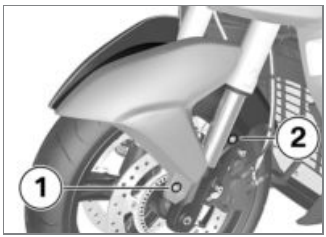
Tyre recommendation

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

Wheel size is very important as a parameter for the ABS. 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 wheels other than those installed ex-works, can have serious effects on the performance of the system.
The sensor rings are essential for correct road-speed calculation, and they too must match the vehicle's system and consequently cannot be changed.
If you decide that you would like to fit non-standard wheels to your Scooter, 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 unit can be changed to suit the new wheel sizes.

Removing front wheel



- Remove screws **1** and **2** on left and right and work the front-wheel cover forward to remove.

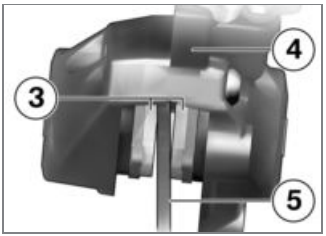


- Remove screw **1** and remove the ABS sensor from its bore.

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

⚠ Once the calipers have been removed, there is a risk of the brake pads being pressed together to the extent that they cannot be slipped back over the brake disc on reassembly.
Do not operate the handbrake lever when the brake calipers have been removed.◀

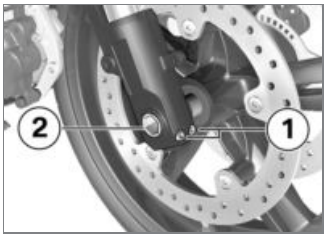
- Remove screws **2** of the brake calipers on left and right.



- Force the brake pads **3** slightly apart by rocking brake caliper **4** back and forth against brake disc **5**.
- Carefully pull the brake calipers back and out until clear of the brake discs.

- Make sure the ground is level and firm and place the Scooter on its centre stand.
- Raise the front of the Scooter until the front wheel can turn freely. BMW Motorrad recommends the BMW Motorrad front-wheel stand for lifting the Scooter.

- Install the front-wheel stand (➠ 92).



- Slacken right axle clamping screws **1**.
- Remove quick-release axle **2**, while supporting the wheel.
- Roll the front wheel forward to remove.

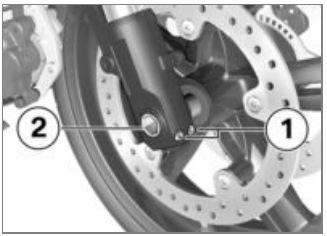
Install the front wheel

Malfunctions are possible when the ABS system intervenes if non-standard wheels are installed.
See the information on the effect of wheel size on the ABS system at the start of this chapter.◀

Threaded fasteners not tightened to the specified torque can work loose or their threads can suffer damage. Always have the security of the fasteners checked by a specialist workshop, preferably an authorised BMW Motorrad dealer.◀

The front wheel must be installed right way round to rotate in the correct direction. Note the direction-of-rotation arrows on the tyre or the wheel rim.◀

- Roll the front wheel into position between the front forks.



- Raise the front wheel, insert quick-release axle **2** and tighten to specified torque.

	Quick-release axle in axle holder
– 30 Nm	

- Tighten axle clamping screws **1** to the specified tightening torque.

Clamping screws (quick-release axle) in telescopic forks
– Tightening sequence: tighten alternately and uniformly
– 8 Nm

- Remove the front-wheel stand.
- Ease the brake calipers on to the brake discs.

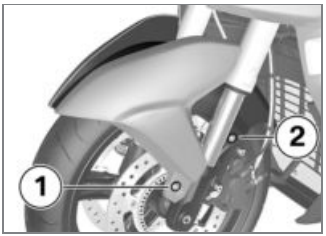


- Tighten screws **2** on left and right to the specified tightening torque.

Brake caliper to fork leg
– 28 Nm

The cable of the wheel-speed sensor could chafe through if it comes into contact with the brake disc.
Make sure that the sensor cable is routed correctly.◀

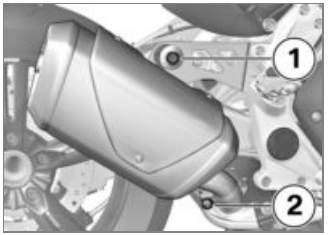
- Insert the ABS sensor into its bore and install screw **1**.
- Remove the adhesive tape from the wheel rim.
- Firmly pull the handbrake lever until the pressure point is perceptible, and repeat this operation several times.



- Hold the front-wheel cover in position and install screws **1** and **2** on left and right.

Remove the rear wheel

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



Risk of burns caused by the hot exhaust system.
Do not touch the exhaust system when it is hot; if necessary, allow the exhaust system ample time to cool before proceeding.◀

- Remove screw **1**, counter-holding the nut on the back.
- Slacken screw **2**.



- Turn the end silencer out.
- Engage first gear or extend the side stand to activate the parking brake.



- Remove five screws **1** from the rear wheel, while supporting the wheel.
- Lower the rear wheel to the ground and roll it out to the rear.

Install the rear wheel

Malfunctions are possible when the ABS system intervenes if non-standard wheels are installed.
See the information on the effect of wheel size on the ABS system at the start of this chapter.◀

Threaded fasteners not tightened to the specified torque can work loose or their threads can suffer damage. Always have the security of the fasteners checked by a specialist workshop, preferably an authorised BMW Motorrad dealer.◀

- Roll the rear wheel into position at the rear-wheel adapter and attach it.

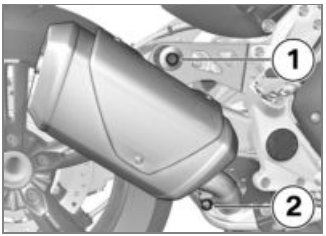


- Install five screws **1** and tighten to the specified torque in diagonally opposite sequence.

Rear wheel to output shaft
– Tightening sequence: tighten in diagonally opposite sequence
– 60 Nm



- Turn the end silencer to the initial position and align in such a way that the screwdriver handle from the on-board toolkit fits between rear wheel and silencer.



- Install screw **1** and tighten to the specified torque while counter-holding the nut at the back.

Silencer to bracket
– 20 Nm

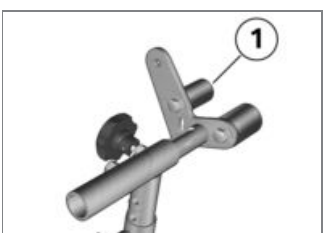
- Tighten screw **2** to the specified tightening torque.

End silencer to front silencer
– 19 Nm

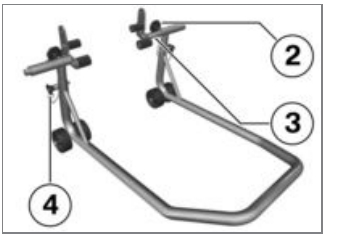
BMW Motorrad front-wheel stand

Installing front-wheel stand

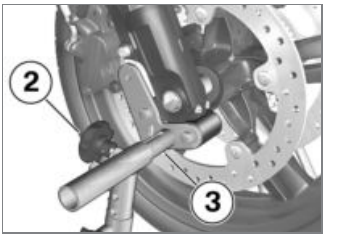
- Make sure the ground is level and firm and place the Scooter on its centre stand.
- Use basic stand with tool number (83 30 0 402 241) in combination with front-wheel adapter (83 30 0 402 242).



- Install rubber buffers **1** in the bottom positions on left and right.



- Slacken adjusting screws **2** on left and right.
- Push adapters **3** on left and right apart until the front forks fit between them.
- Use locating pins **4** on left and right to set the front-wheel stand to the desired height.
- Centre the front-wheel stand relative to the front wheel and push it against the front axle.



- Align adapters **3** on left and right so that the front forks are securely seated.
- Tighten adjusting screws **2** on left and right.



If the Scooter is raised too far the centre stand will lift clear of the ground and the Scooter could topple to one side. When raising the vehicle, make sure that the centre stand remains on the ground. If necessary, adjust the height of the front-wheel stand.◀

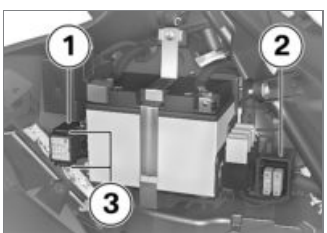
- Apply uniform pressure to push the front-wheel stand down and raise the Scooter.
- Make sure the Scooter is standing firmly.

Fuses

Removing fuse

Any attempt to jumper a defective fuse gives rise to the risk of a short-circuit and fire. Always replace a defective fuse with a new fuse of the same amperage.◀

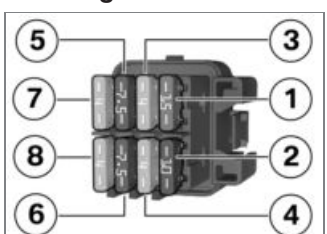
- Switch off the ignition.
- Remove the right side panel.



- Using the tool from the onboard toolkit, remove the defective fuse from fuse box **1** or from fuse carrier **2**, as applicable.
- To open the fuse box, squeeze latches **3** together and remove the fuse cover.

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

Installing fuse



- Replace the defective fuse with a fuse of the correct amperage rating.

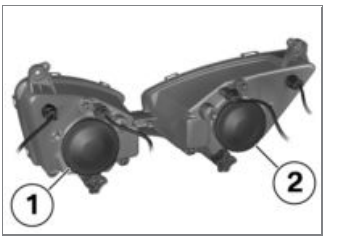
The fuse assignments and fuse amperage ratings specified for your motorcycle are listed in the section entitled "Technical data". The figures in the graphic correspond to the fuse numbers.◀

- Close the fuse cover.
» The latch engages with an audible click.
- Install the side panel (➠ 104).

Bulbs

Replacing low-beam and high-beam headlight bulb

- Make sure the ground is level and firm and place the Scooter on its stand.
- Switch off the ignition.
- Remove the right side panel so that the low-beam headlight bulb can be replaced.
- Remove the left side panel so that the high-beam headlight bulb can be replaced.



- To replace the high-beam headlight bulb, remove cover **1**; to replace the low-beam headlight bulb, remove cover **2**.



- Disconnect plug **3**.



- Disengage spring clip **4** from the latches and swing it up.
- Remove bulb **5**.

- Replace the defective bulb.

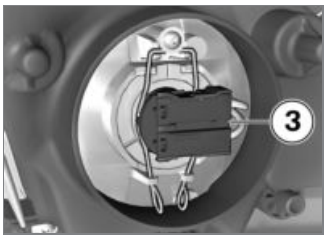
Bulbs for the low-beam headlight
– H7 / 12 V / 55 W

Bulb for high-beam headlight
– H7 / 12 V / 55 W

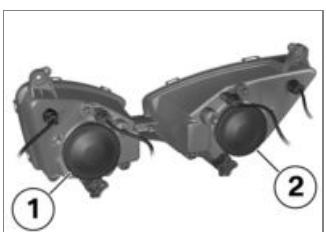
- Hold the new bulb by the base only, in order to keep the glass free of foreign matter.



- Install bulb **5**, making sure that tab **6** is correctly positioned.
- Engage spring retainer **4** in the catches.



- Close plug **3**.

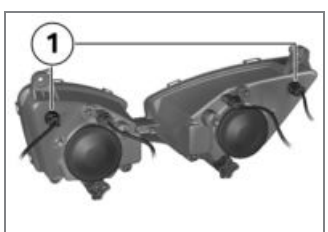


- Install cover **1** or cover **2**, as applicable.
- Install the side panel (➠ 104).

Replacing parking-light bulb

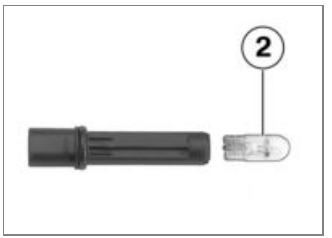
– without daytime riding lights OE

- Make sure the ground is level and firm and place the Scooter on its stand.
- Switch off the ignition.
- Remove the right side panel so that the right parking-light bulb can be replaced.
- Remove the left side panel so that the left parking-light bulb can be replaced.



- Disconnect the plug of the bulb to be replaced and re-

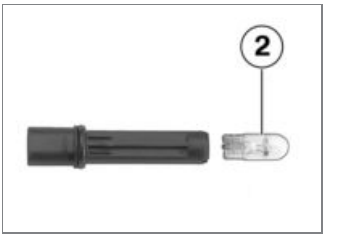
move bulb socket **1** by turning it counter-clockwise.



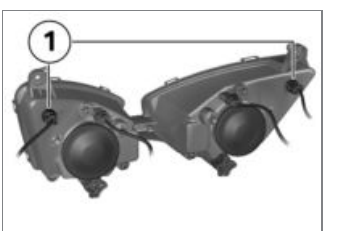
- Pull bulb **2** out of the bulb holder.
- Replace the defective bulb.

Bulb for parking light
– W5W / 12 V / 5 W
– with daytime riding lights OE
– LED / 12 V◁

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

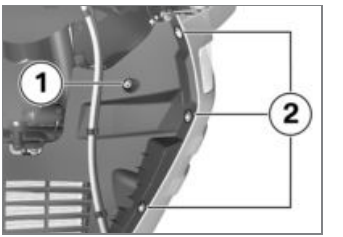


- Fit the bulb **2** in the bulb holder.

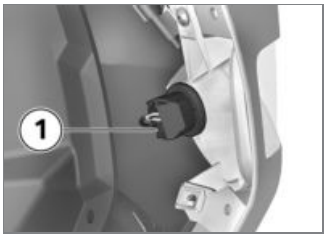


- Turn bulb socket **1** clockwise to install and connect the plug.
- Install the side panel (➠ 104).

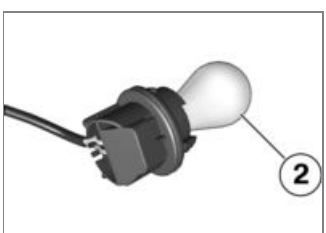
Replacing front turn indicator bulbs



- Remove screw **1**.
- Remove screws **2** and use a screwdriver to ease out the body-bound rivet.
- Carefully work the radiator cowl inward until the turn-indicator bulb is accessible.



- Turn bulb holder **1** counter-clockwise to remove it from the bulb housing.

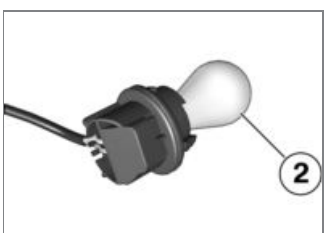


- Turn flashing indicator bulb **2** counter-clockwise and remove it from the socket.

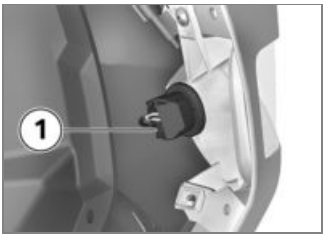
- Replace the defective bulb.

Bulbs for flashing turn indicators, front
– PY21W / 12 V / 21 W
– with LED turn indicators OE
– LED / 12 V◁

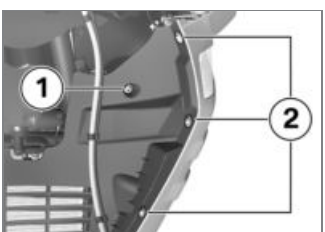
- Hold the new bulb by the base only, in order to keep the glass free of foreign matter.



- Turn flashing indicator bulb **2** clockwise to secure it in the socket.



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



- Work the radiator cowl into the correct position.
- Insert the body-bound rivets and push screws **2** into position.

- Install screw **1**.

Replacing rear turn indicator bulbs

- Make sure the ground is level and firm and place the Scooter on its stand.
- Switch off the ignition.



- Remove screw **1**.



- Remove the glass from the bulb housing.



- Turn bulb **2** counter-clockwise and remove it from the bulb housing.

- Replace the defective bulb.

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

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



- Press bulb **2** into its socket and turn it clockwise to install.



- Seat the glass in the bulb housing.



- Install screw **1**.

Replacing number-plate light

- Make sure the ground is level and firm and place the Scooter on its stand.
- Switch off the ignition.



- Pull bulb socket **1** out of the bulb housing.



- Pull the bulb out of the bulb socket.
- Replace the defective bulb.

Bulb for number-plate light
– W5W / 12 V / 5 W

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



- Insert the bulb into the bulb socket.



- Insert bulb socket **1** into the bulb housing.

Jump starting

The wires leading to the charging socket do not have a load-capacity rating adequate for jump-starting the engine of the Scooter. Excessively high current can lead to a cable fire or damage to the vehicle electronics.
Do not use the charging socket to jump-start the engine of the Scooter.◀

A short-circuit can result if the crocodile clips of the jump leads are accidentally brought into contact with the motorcycle.
Use only jump leads fitted with fully insulated crocodile clips at both ends.◀

Jump-starting with a donor-battery voltage higher than 12 V can damage the vehicle 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 Scooter on its stand.
- Remove the right side panel.
- Begin by connecting one end of the red jump lead to the vehicle's battery positive terminal and the other end to the positive terminal of the donor vehicle's battery.
- Connect one end of the black jump lead to the vehicle's battery negative terminal and the other end to a suitable grounding point on or the negative terminal of the donor vehicle's 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 the negative terminal and the ground point first, then disconnect the second jump lead from the positive terminal and the battery connection point.

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

- Install the side panel (➠ 104).

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
– Be sure to read and comply with the instructions for charging the battery on the following pages
– Do not turn the battery upside down

If the battery is not disconnected, the on-board electronics (e.g. clock, etc.) gradually drain the battery. This can cause the battery to run flat. If this happens, warranty claims will not be accepted.
Connect a float charger to the battery if the motorcycle is to remain out of use for more than four weeks.◀

Charging battery when connected

Charging the connected battery directly at the battery terminals can damage the vehicle electronics.
Always disconnect the battery from the on-board circuits before recharging it with a charger connected directly to the battery posts.◀

If you switch on the ignition and the multifunction display and indicator light fail to light up, the battery is completely flat (battery voltage is less than 9 V). Attempting to charge a completely flat battery via the extra socket can cause damage to the motorcycle's electronics.
If a battery has discharged to the extent that it is completely flat, it has to be disconnected from the on-board circuits and charged

with the charger connected directly to the battery posts.◀

- With the battery connected to the vehicle's on-board electrical system, charge only via the extra socket. The extra socket is available as an optional accessory only.
- Comply with the operating instructions of the charger.

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.

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

Removing battery

- Switch off the ignition.

– with anti-theft alarm (DWA) OE

- If applicable, switch off the anti-theft alarm.◁
- Remove the right side panel.



Disconnection in the wrong sequence increases the risk of short-circuits.
Always proceed in the correct sequence.◀

- Disconnect negative lead **1** first.
- Then disconnect positive lead **2**.
- Remove screw **3** and remove the retainer.
- Remove the battery from the holder.

Installing battery

- Position the battery in the battery compartment with the positive terminal on the left side.



- Slip the battery retainer over the battery and install screw **3**.

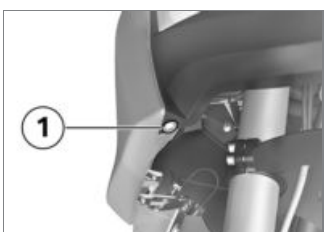
Installation in the wrong sequence increases the risk of short-circuits.
Always proceed in the correct sequence.◀

- Connect positive lead **2** first.
- Then connect negative lead **1**.
- Install the side panel (➠ 104).

- Setting date and time (➠ 39).

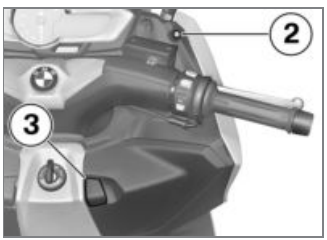
Body panels

Removing side panel

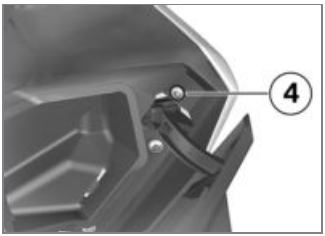


- Remove screw **1**.

▷ The procedure for the right side panel is described here, but the description applies by analogy to the left side panel.◀



- Remove screw **2**.
- Open stowage compartment **3**.



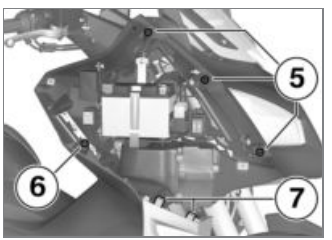
- Remove screw **4** in the stowage compartment.



- Ease the side panel out of its holders at positions **5** at the top edge.

- Ease the side panel out, working it out of the holder at position **6**.
- Then slightly raise the side panel and remove.

Installing side panel



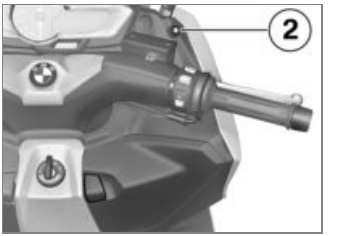
- Seat the side panel in mounts **7**.

▷ The procedure for the right side panel is described here, but the description applies by analogy to the left side panel.◀

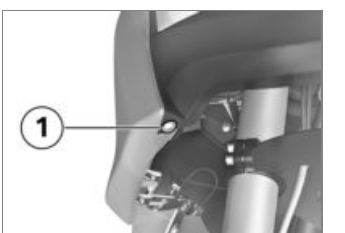
- Tilt the side panel up and push it first into holder **6** and then into holders **5**.



- Install screw **4** in the stowage compartment.
- Close the stowage compartment.



- Install screw **2**.



- Install screw **1**.

Care

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Washing vehicle 106
Cleaning easily damaged components 106
Paint care 107
Protective wax coating 108
Laying up Scooter 108
Restoring Scooter to use 108

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.

The use of unsuitable cleaning and care products can damage vehicle components. Do not use solvents such as cellulose thinners, cold cleaners, fuel or the like, and do not use cleaning products that contain alcohol.◀

Washing 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 Scooter with cold water immediately after every trip.

After the Scooter has been washed, ridden through water or ridden in the rain, the brake discs and pads might be wet and the brakes might not take effect immediately.

Apply the brakes in good time until the brake discs and brake pads have dried out.◀

Warm water intensifies the effect of salt.

Use only cold water to wash off road salt.◀

The high pressure of high-pressure cleaners (steam cleaners) can damage seals, the hydraulic brake system, the electrical system, and the seat.

Do not use a steam jet or high-pressure cleaning equipment.◀

Cleaning easily damaged components

Plastics

If plastic parts are cleaned using unsuitable cleaning agents, the surfaces can be damaged.

Do not use cleaning agents that contain alcohol, solvents or abrasives to clean plastic parts.

Even insect-remover pads or cleaning pads with hard surfaces can produce scratches.◀

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

Windscreens and headlight lenses made of plastic
Clean off dirt and insects with a soft sponge and plenty of water.

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

Chrome

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

Radiator

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

Cooling fins can be bent easily.
Take care not to bend the fins when cleaning the radiator.◀

Rubber

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

Using silicone sprays for the care of rubber seals can cause damage.
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 vehicle has been washed. Remove stains of this kind immediately, using cleaning-grade benzene or petroleum spirit on a clean cloth or ball of cotton wool. BMW Motorrad recommends BMW tar remover for removing specks of tar. Remember to wax the parts treated in this way.

Protective wax coating

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

Laying up Scooter

- Clean the Scooter.
- Remove the battery (➠ 102).
- Spray the brake-lever, sidestand and centre-stand pivot mounts with a suitable lubricant.
- Coat bright metal and chrome-plated parts with an acid-free grease (e.g. Vaseline).
- Stand the vehicle in a dry room in such a way that there is no load on either wheel.

Restoring Scooter to use

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

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troubleshooting chart

Engine does not start at all or is difficult to start.

Possible cause	Rectification
Side stand extended	Retract the side stand.
Starting without brake application	Operate a brake lever when starting.
Storage compartment open	Close the stowage compartment.
No fuel in tank	Refuelling (➠ 58).
Battery flat	Recharge the battery.

Threaded fasteners

Front wheel	FR	Valid
Quick-release axle in axle holder		
M18 x 1,5	30 Nm	
Clamping screws (quick-release axle) in telescopic forks		
M6 x 30	**tighten alternately and uniformly**	
	8 Nm	
Brake caliper to fork leg		
M8 x 32	28 Nm	

Rear wheel	FR	Valid
Rear wheel to output shaft		
M10 x 1,25 x 40	**tighten in diagonally opposite sequence**	
	60 Nm	
Silencer to bracket		
M8 x 30	20 Nm	
End silencer to front silencer		
M8 x 30	19 Nm	

Engine

Engine design	Two-cylinder four-stroke DOHC engine, 4 valves actuated by bucket tappets, two balancing shafts, liquid cooling, dry-sump lubrication
Displacement	647 cm^3
Cylinder bore	79 mm
Piston stroke	66 mm
Compression ratio	11,6:1
Nominal output	44 kW, at engine speed: 7500 min^{-1}
Torque	66 Nm, at engine speed: 6000 min^{-1}
Maximum engine speed	max 8500 min^{-1}

Fuel

Recommended fuel grade	Super unleaded (max. 10 % ethanol, E10) 95 ROZ/RON 89 AKI
Usable fuel capacity	approx. 16 l
Fuel reserve	approx. 3 l

BMW recommends BP fuels

Engine oil

Engine oil, capacity	approx. 3.1 l, with filter change
products recommended by BMW Motorrad	
BMW Motorrad High Performance oil	SAE 15W-50, API SJ / JASO MA2

BMW recommends Castrol

Clutch

clutch type	Centrifugal clutch

Transmission

gearbox type	CVT (Continuously Variable Transmission)
Primary transmission ratio	1:1,06
Transmission ratio, secondary transmission	1:2,72
Transmission ratio, CVT	1: 10,7...4,6

Rear-wheel drive

Type of final drive	Chain drive in oil bath
Number of teeth, rear-wheel drive (Pinion / sprocket)	16 / 27
Secondary transmission ratio	1,688

Running gear

Type of front suspension	Upside-down telescopic fork
Spring travel, front	115 mm, At wheel
Type of rear suspension	Cast aluminium single swinging arm
Type of rear suspension	direct-pivot spring strut with adjustable spring pre-load
Spring travel, rear	115 mm, At wheel

Brakes

Type of front brake	hydraulically actuated twin-disc brake with 2-piston floating calipers
Brake-pad material, front	Sintered metal
Type of rear brake	hydraulically actuated disc brake with 2-piston floating caliper, Brake for riding Bowden-cable-actuated disc brake with 1-piston floating caliper, Parking brake
Brake-pad material, rear	Organic material

Wheels and tyres

Recommended tyre sets	You can obtain an up-to-date list of approved tyres from your authorised BMW Motorrad dealer or on the Internet at "www.bmw-motorrad.com".
Front wheel	
front wheel type	Cast aluminium, MT H2
front wheel rim size	3,50" x 15"
Tyre designation, front	120 / 70 R15
Rear wheel	
rear-wheel type	Cast aluminium, MT H2
rear wheel rim size	4,50" x 15"
Tyre designation, rear	160 / 60 R 15
Tyre pressure	
Tyre pressure, front	2.4 bar, Tyre cold
Tyre pressure, rear	2.5 bar, one-up, tyre cold 2.9 bar, two-up and/or with luggage, tyre cold

Electrics

Battery	
battery type	AGM (Absorbent Glass Mat) battery
battery rated voltage	12 V
battery rated capacity	11.2 Ah
Spark plugs	
Electrode gap of spark plug	$0.8^{\pm 0.1}$ mm
Lighting	
Bulbs for the low-beam headlight	H7 / 12 V / 55 W
Bulb for high-beam headlight	H7 / 12 V / 55 W
Bulb for parking light	W5W / 12 V / 5 W
– with daytime riding lights OE	LED / 12 V
Bulbs for flashing turn indicators, front	PY21W / 12 V / 21 W
– with LED turn indicators OE	LED / 12 V
Bulbs for flashing turn indicators, rear	RY10W / 12 V / 10 W
– with LED turn indicators OE	LED / 12 V
Bulb for tail light/brake light	LED / 12 V
Bulb for number-plate light	W5W / 12 V / 5 W

Fuses	
Fuse holder	30 A, Fuse 9: Control unit, instrument panel / ignition switch 30 A, Fuse 10: Control unit, anti-lock brake system (ABS)
Fuse box	15 A, Fuse 1: DME main relay 10 A, Fuse 2: Control unit, Digital Motor Electronics (DME) 4 A, Fuse 3: Control unit, anti-theft alarm (DWA) / tyre pressure monitoring (RDC) 4 A, Fuse 4: Brake-light switch, front brake / rear-wheel brake / socket for optional accessories 7.5 A, Fuse 5: Fan 7.5 A, Fuse 6: On-board socket(s) 4 A, Fuse 7: Number-plate light 4 A, Fuse 8: Control unit, Digital Motor Electronics (DME) / anti-lock brake system (ABS) / instrument panel

Frame

Frame type	Bridge-type steel frame with cast light-alloy bolt-on side parts
Location of the vehicle identification number	Frame tube, front right
type plate location	Frame

Dimensions

Length of motorcycle	2155 mm
Height of motorcycle	1378 mm, To windscreen at DIN unladen weight
Width of motorcycle	877 mm, Across mirrors
Front-seat height	780 mm, Without rider
rider's inside-leg arc, heel to heel	1770 mm, Without rider

Weights

Unladen weight	248 kg, DIN unladen weight, ready for road, 90 % load of fuel, without OE
Permissible gross weight	445 kg
Maximum payload	197 kg

Riding specifications

Top speed	175 km/h

Service

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BMW Motorrad Service

BMW Motorrad has an extensive after-sales service network in place to look after you and your Scooter in more than 100 countries. Authorised BMW Motorrad dealerships have the technical information and the technical know-how to carry out reliably all maintenance and repair work on your BMW Scooter.
Visit our website www.bmw-motorrad.com to find out where the nearest authorised BMW Motorrad dealership is located.

If maintenance and repair work is performed inexpertly, it could result in consequential damage and thus constitute a safety risk.
BMW Motorrad recommends you to have all the associated work on your Scooter carried out by a specialist workshop, preferably an authorised BMW Motorrad dealer.◀

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

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

BMW Motorrad Mobility services

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

Maintenance work

BMW Pre-delivery Check

Your authorised BMW Motorrad dealer conducts the BMW 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 vehicle has covered between 500 km and 1200 km

BMW Service

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

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

Item	Odometer reading	Date

Appendix

Certificate..... 132

Certification Tire Pressure Control (TPC)

FCC ID: MRXBC54MA4 IC: 2546A-BC54MA4	FCC ID: MRXBC5A4 IC: 2546A-BC5A4

This device complies with Part 15 of the FCC Rules and with Industry Canada license-exempt RSS standard(s).
Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and
(2) This device must accept any interference received, including interference that may cause undesired operation.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

(1) l'appareil ne doit pas produire de brouillage, et
(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

WARNING: Changes or modifications not expressively approved by the party responsible for compliance could void the user's authority to operate the equipment. The term “IC:” before the radio certification number only signifies that Industry Canada technical specifications were met.

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

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Important data for refuelling.

Fuel	
Recommended fuel grade	Super unleaded (max. 10 % ethanol, E10) 95 ROZ/RON 89 AKI
Usable fuel capacity	approx. 16 l
Fuel reserve	approx. 3 l
Tyre pressure	
Tyre pressure, front	2.4 bar, Tyre cold
Tyre pressure, rear	2.5 bar, one-up, tyre cold 2.9 bar, two-up and/or with luggage, tyre cold

BMW recommends Castrol

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