



BMW Motorrad



Rider's Manual

C evolution

Vehicle data/dealership details

Vehicle data

Model

Vehicle Identification Number

Colour code

Date of first registration

Registration number

Dealership details

Person to contact in Service department

Ms/Mr

Phone number

Dealership address/phone number (company stamp)

Welcome to BMW

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

About this Rider's Manual

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

Suggestions and criticism

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

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

BMW Motorrad.

01 40 9 480 001



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General instructions

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About this Rider's Manual

Read this Rider's Manual before you start your new E-Scooter. Here you will find important information concerning operation of the vehicle which will allow you to get the best out of the advanced engineering of your E-Scooter.

In addition, you will find information on servicing and care that will help with safety in use and on the road, and will ensure that your vehicle keeps its value.

Overview

Chapter 2 of this Rider's Manual contains an initial overview of your E-Scooter. Chapter 13 documents all the service and maintenance tasks that have been carried out. This record of the maintenance work you have had

performed on your vehicle is a precondition for generous treatment of goodwill claims.

Sale of the E-Scooter

Make sure that you also pass on the Rider's Manual if you should one day sell your E-Scooter. The Rider's Manual is an important part of your vehicle.

The high-voltage system on your E-Scooter

Your E-Scooter is an electric vehicle. The vehicle is fitted with a high-voltage system which includes an electrical machine and a high-voltage battery.



Warning sticker on vehicle components

The warning sticker on vehicle components warns you that there is a danger of being critically injured if you do not handle high-voltage technology or high-voltage components correctly.

Abbreviations and symbols



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

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

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

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

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

◀ Indicates the end of an item of information.

• Instruction.

» Result of an activity.

 Reference to a page with more detailed information.

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

 Tightening torque.

 Technical data.

NV National-market version.

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

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

EWS Electronic immobiliser.

DWA Anti-theft alarm (Diebstahlwarnanlage).

ABS Anti-lock brake system.

IC-CPD (In Cabel Control and Protecting Device) Electronics module between infrastructure and electric vehicle to increase protection level and control the charging procedure.

RBS Regenerative brake system (brake system with energy recovery).

TCA Torque Control Assist.

Equipment

When purchasing your E-Scooter, you chose a model with individual equipment. This rider's manual describes optional equipment (OE) and selected optional accessories (OA) provided by BMW. Please make allowance for the fact that some equipment specifications may be described that you have not selected. Country-specific deviations from the vehicle shown are also possible. If your E-Scooter includes equipment that is not described in this rider's manual, it is described in a separate rider's manual.

Technical data

All dimensions, weights and power outputs in the rider's manual refer to the German standard DIN (Deutsches Institut für Normung e. V.) and comply with its specified tolerances. Technical data and specifications in this rider's manual serve as reference points. The vehicle-specific data may deviate from these, for example as a result of selected optional equipment, the national-market version or country-specific measuring procedures. Detailed values can be taken from the vehicle registration documents and signs on the vehicle, or can be obtained from your authorised BMW Motorrad Retailer or another qualified service partner or specialist workshop. The specifications in the vehicle documents always have priority

over the information provided in this rider's manual.

Currentness

The high safety and quality level of BMW E-Scooters is ensured by constant further development in the areas of design, equipment and accessories. This may result in possible deviations between this rider's manual and your vehicle. Also, mistakes cannot be excluded by BMW Motorrad. Please therefore understand that we do not accept any liability for claims arising from incorrect information, drawings and descriptions.

Additional sources of information

BMW Motorrad Retailer

Your BMW Motorrad Retailer will be happy to answer any questions you may have.

Internet

The rider's manual for your vehicle, operating and installation instructions for any accessories and general information on BMW Motorrad, for example relating to technology, are available at **www.bmw-motorrad.com/service**.

Certificates and operating licences

The certificates for the vehicle and the official operating licences for any accessories are available at **www.bmw-motorrad.com/certification**.

Data memory

General

Control units are installed in the vehicle. Control units process data that they receive, for example, from vehicle sensors, or that they generate themselves or

exchange between each other. Some control units are required for the vehicle to function safely or provide assistance during riding, for example assistance systems. In addition, control units enable comfort or infotainment functions.

Information on data that has been stored or exchanged can be obtained from the manufacturer of the vehicle, for example via a separate booklet.

Personal reference

Each vehicle is identified with a clear vehicle identification number. Depending on the country, the vehicle identification number, the number plate and the corresponding authorities can be referenced to ascertain the vehicle owner. There are also other ways to use data obtained from the vehicle to trace the rider or vehicle owner, for example

using the ConnectedDrive user account.

Data protection rights

In accordance with applicable data protection laws, vehicle users have certain rights in relation to the manufacturer of the vehicle or in relation to companies which collect or process personal data.

Vehicle users have the right to obtain full information at no cost from persons or entities storing personal data of the vehicle user.

These entities may include:

- Manufacturer of the vehicle
- Qualified service partners
- Specialist workshops
- Service providers

Vehicle users have the right to request information on what personal data has been stored, for what purpose the data is used, and where the data comes from.

To obtain this information, proof of ownership or use is required.

The right to information also includes information about data that has been shared with other companies or entities.

The website of the vehicle manufacturer contains the applicable data protection information. This data protection information includes information on the right to have data deleted or corrected.

The manufacturer of the vehicle also provides their contact details and those of the data protection officer on their website.

The vehicle owner can also request that a BMW Motorrad Retailer or another qualified service partner or specialist workshop read out the data that is stored in the vehicle for a charge.

The vehicle data is read out using the legally prescribed socket for on-board diagnosis (OBD) in the vehicle.

Legal requirements for the disclosure of data

As part of its legal responsibilities, the manufacturer of the vehicle is obligated to make its stored data available to the relevant authorities. This data is provided in the required scope in individual cases, for example to clarify a criminal offence.

In the context of applicable laws, public agencies are entitled in individual cases to read out data from the vehicle themselves.

Operating data in the vehicle

Control units process data to operate the vehicle.

This includes, for example:

- Status reports of the vehicle and its individual components, for example wheel revolutions, wheel speed, deceleration

- Environmental conditions, for example temperature

The data is only processed in the vehicle itself and is generally non-permanent. The data is not stored beyond the operating period.

Electronic components, for example control units, contain components for storing technical information. Information can be temporarily or permanently stored on the vehicle condition, component loads, incidents or errors. This information is generally used to document the condition of a component, a module, a system or the surrounding area, for example:

- Operating conditions of system components, for example filling levels, tyre pressure
- Malfunctions and faults in important system components, for example light and brakes

- Response of the vehicle in special riding situations, for example engagement of the driving dynamics systems
- Information on incidents resulting in damage to the vehicle

The data is necessary for the provision of control unit functions. Furthermore, the data is used to detect and rectify malfunctions and to enable the vehicle manufacturer to optimise vehicle functions.

The vast majority of this data is non-permanent and is only processed in the vehicle itself. Only a small amount of the data is stored in incident or fault memories as required by events.

If services are accessed, for example repairs, service processes, warranty cases and quality assurance measures, this technical information can be read out of the

vehicle together with the vehicle identification number.

The information can be read out by a BMW Motorrad Retailer or another qualified service partner or specialist workshop. The legally stipulated socket for on-board diagnosis (OBD) in the vehicle is used to read out the data.

The data is obtained, processed and used by the relevant parts of the retailer network. The data is used to document the technical conditions of the vehicle, to help with error localization, to comply with warranty obligations and to improve quality.

In addition, the manufacturer has various product monitoring obligations arising from product liability legislation. To meet these obligations, the vehicle manufacturer requires technical data from the vehicle. The data from the vehicle can also be used to

check warranty claims from the customer.

Error and incident memories in the vehicle can be reset during servicing or repair work by a BMW Motorrad Retailer or another qualified service partner or specialist workshop.

Data input and data transfer in the vehicle

General

Depending on the equipment, comfort and customised settings can be stored in the vehicle and can be changed or reset at any time.

This includes, for example:

- Settings of the windscreen position
- Chassis and suspension settings

If required, data can be entered in the entertainment and commu-

nication system of the vehicle, for example using a smartphone.

Depending on the individual equipment, this includes:

- Multimedia data, such as music for playback
- Contacts data for use in connection with a communication system or an integrated navigation system
- Entered destinations
- Data on the use of internet services. This data can be stored locally in the vehicle or is located on a device that is connected to the vehicle, for example smartphone, USB stick, MP3 player. If this data is stored in the vehicle, the data can be deleted at any time.

This data is transferred to third parties only if personally requested within the context of using online services. This depends on

the selected settings when using the services.

Incorporation of mobile end devices

Depending on the equipment, mobile end devices connected to the vehicle, for example smartphones, can be controlled using the operating elements of the vehicle.

The image and sound of the mobile end device can then be output via the multimedia system. At the same time, specific information is transferred to the mobile end device. Depending on the type of integration, this includes, for example, position data and additional general vehicle information. This enables optimal use of the selected apps, for example navigation or music playback.

The type of additional data processing is determined by the provider of the respective app.

The scope of the possible settings depends on the corresponding app and the operating system of the mobile end device.

Services

General

If the vehicle has a wireless connection, this enables the exchange of data between the vehicle and other systems. The wireless connection is enabled by the vehicle's own transmitter and receiver unit or using personally integrated mobile end devices, for example smartphones. Online functions can be used using this wireless connection. These include online services and apps that are provided by the vehicle manufacturer or by other providers.

Services of the vehicle manufacturer

For online services of the vehicle manufacturer, the individual

functions are described at suitable points, for example rider's manual, website of the manufacturer. At the same time, information is also provided on the relevant data protection law. Personal data may be used to provide online services. Data is exchanged using a secure connection, for example with the IT systems provided by the vehicle manufacturer.

Obtaining, processing and using personal data outside of the normal provision of services requires legal permission, contractual agreement or consent. It is also possible to have the entire data connection activated or deactivated. Statutory functions are excluded from this.

Services from other providers

When using online services from other providers, these services are subject to the responsibility and the data protection and

operating conditions of the individual provider. The vehicle manufacturer has no influence on the content that is exchanged in this instance. Information on the type, scope and purpose of the data capture and use of personal data as part of the services of third parties can be ascertained from the individual provider.

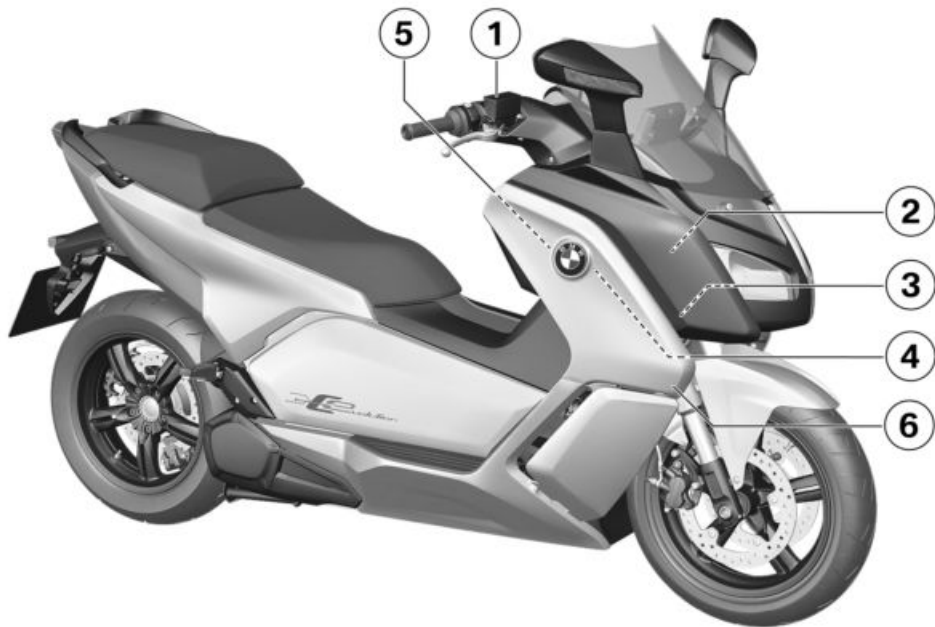
General views

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General view, right side	19
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Multifunction switch, left	21
Multifunction switch, right	22
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General view, left side

- 1 Brake-fluid reservoir for the rear-wheel brake (➡ 107)
- 2 Helmet compartment (➡ 60) (➡ 60)
- 3 Spring preload (➡ 62)
- 4 Charging socket (➡ 71)

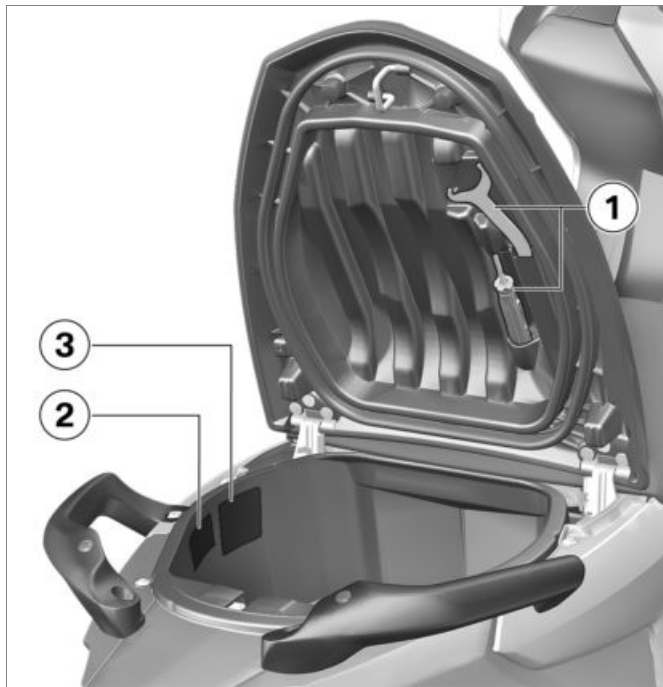


General view, right side

- 1** Brake-fluid reservoir for the front-wheel brake (▮▮▮▮ 106)
- 2** Vehicle identification number (VIN) (steering-head bearing, top right)
- 3** Type plate (front panel carrier, inside, right side)
- 4** 12 V battery (behind side panel) (▮▮▮▮ 114)
Fuses (behind side panel) (▮▮▮▮ 116)
- 5** 12 V socket (right stowage compartment) (▮▮▮▮ 120)
- 6** High-voltage service disconnect (behind fairing side panel) (▮▮▮▮ 37)

Underneath the seat

- 1 Toolkit (→ 102)
- 2 Payload table
- 3 Tyre pressure table



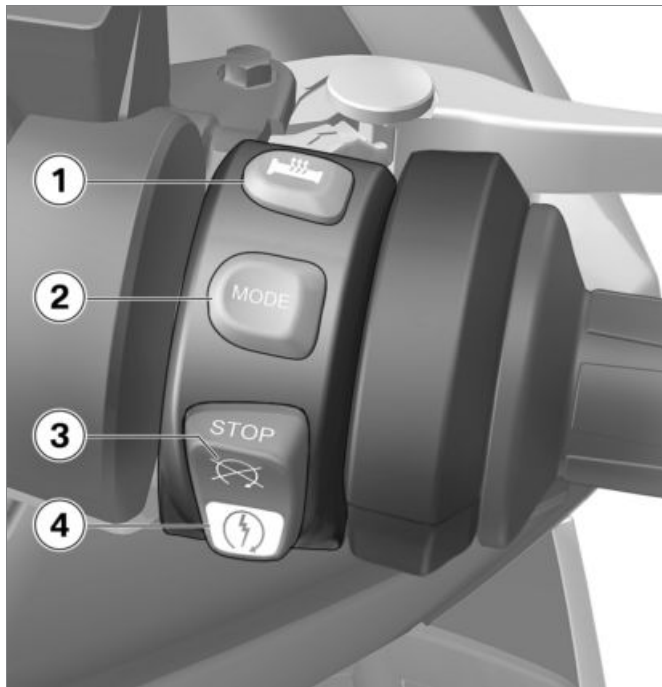


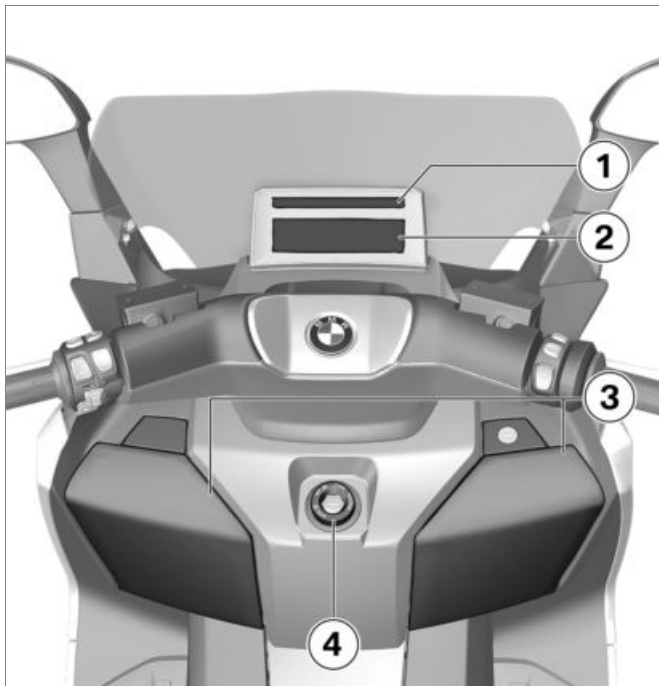
Multifunction switch, left

- 1 High-beam headlight and headlight flasher (► 49)
- 2 Hazard warning lights system (► 51)
- 3 Using reverser (► 48).
- 4 Turn indicators (► 52)
- 5 Horn
- 6 On-board computer (► 53)
- 7 TRIP, odometer (► 53)
- 8 Daytime riding light (► 49)

Multifunction switch, right

- 1 – with heated grips^{OE}
Heated grips (➡ 59)
- 2 Riding mode (➡ 81)
- 3 Emergency off switch (kill switch) (➡ 47)
- 4 Starter button (➡ 88)





Cockpit

- 1** Indicator and warning lights
(➡ 26)
- 2** Multifunction display
(➡ 28)
- 3** Stowage compartments
(➡ 60)
Charging socket (left)
(➡ 120)
12 V socket and Rider's
Manual (right stowage
compartment) (➡ 120)
- 4** Ignition switch/steering lock
(➡ 46)

Status indicators

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Multifunction display	28
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Service-due indicator	42
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Indicator and warning lights

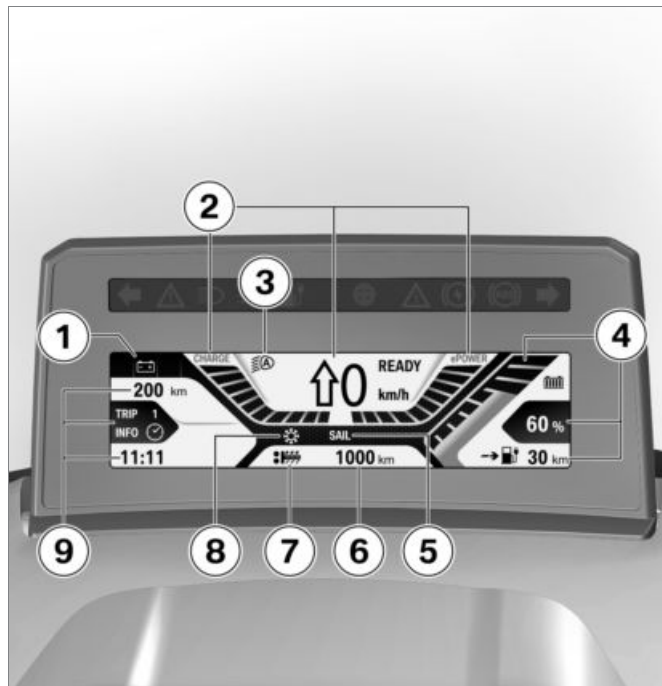
- 1 Turn indicators, left (➡ 52)
- 2 General warning light (➡ 32)
- 3 High-beam headlight (➡ 49)
- 4 Daytime riding light (➡ 49)
- 5 Reserve (flashes yellow during charging and shows green when high-voltage battery unit is fully charged)
- 6 DWA (➡ 55)
Photosensor (➡ 56)
- 7 Insulation fault (shows yellow) (➡ 37)
High-voltage safety connector not connected (shows red) (➡ 37)
- 8 RBS (➡ 38)
TCA (➡ 38)
- 9 ABS (➡ 38)

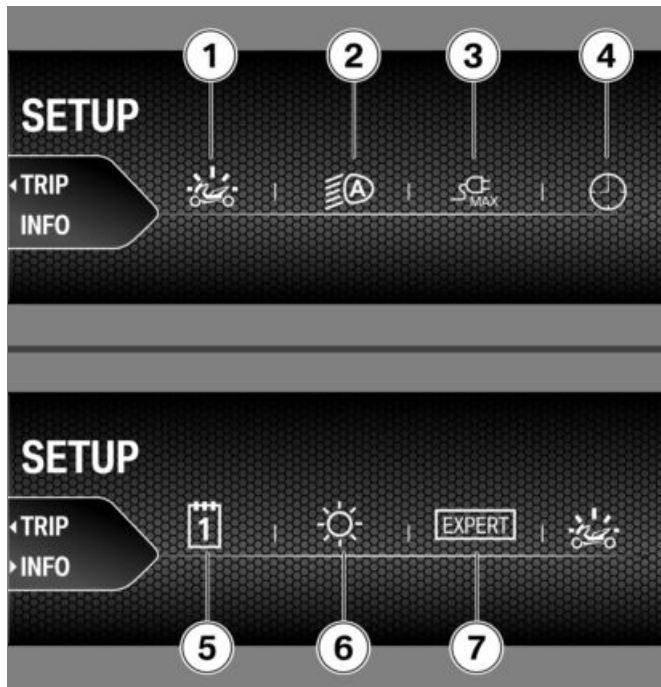


- 10** Turn indicators, right
( 52)

Multifunction display

- 1 Warnings (➡ 32)
- 2 Drive gauge (➡ 80)
- 3 Automatic daytime riding light (➡ 50)
- 4 Charge-status indicator (➡ 82)
- 5 Riding mode (➡ 81)
- 6 Total distance
- 7 – with heated grips^{OE}
- 8 Heated grips (➡ 59)
- 9 Outside temperature warning
- 9 Top: distance information and Setup menu (➡ 57)
- 9 Bottom: on-board computer (➡ 53)





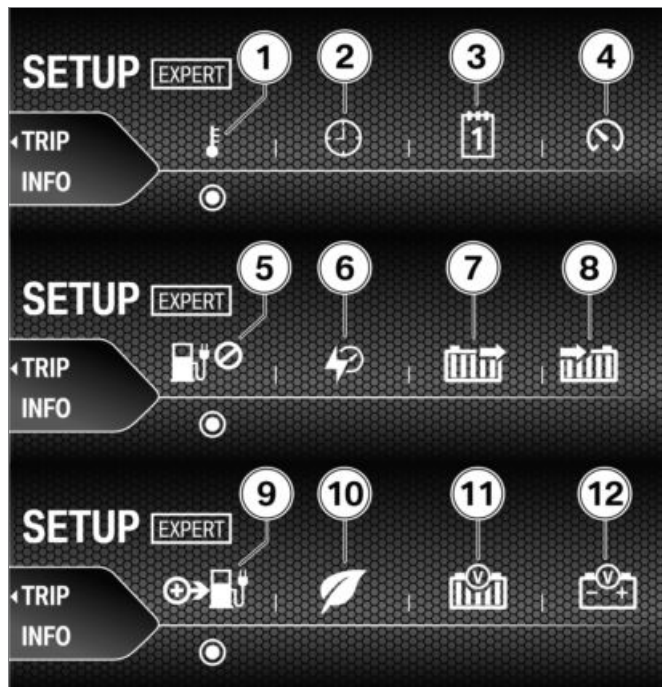
Setup menu

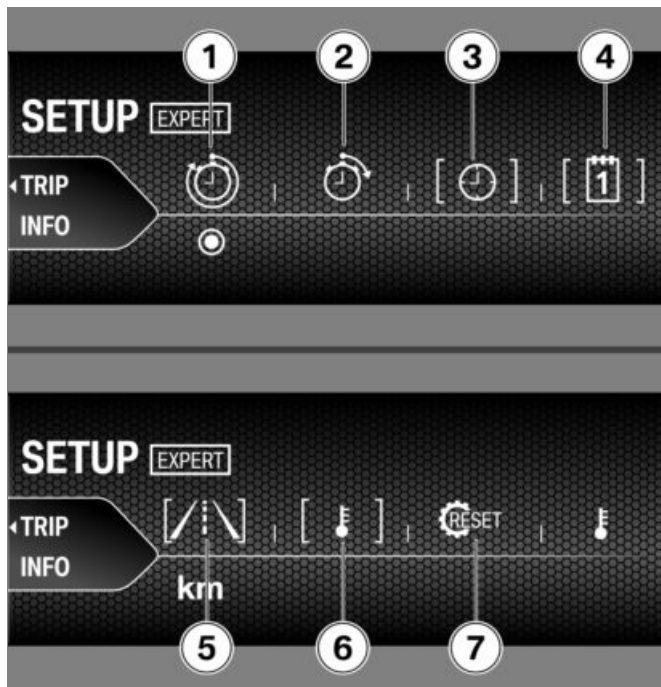
- 1 – with anti-theft alarm (DWA)^{OE}
Operating the anti-theft alarm (➡ 55).
- 2 Using automatic daytime riding light (➡ 50).
- 3 Charge current setting (➡ 79)
- 4 Setting time (➡ 55).
- 5 Setting the date (➡ 56).
- 6 Adjust the display brightness (➡ 56).
- 7 Call up Expert menu (➡ 57).

Expert menu (part 1)

You can switch certain functions on/off and change formats/units of measure in the Expert menu.

- 1 Ambient temperature
- 2 Time
- 3 Date
- 4 Average speed
- 5 Average consumption
- 6 Current consumption
- 7 Overall consumption
- 8 Energy recovery
- 9 Extended range
- 10 Ecology points
- 11 High voltage level
- 12 On-board voltage





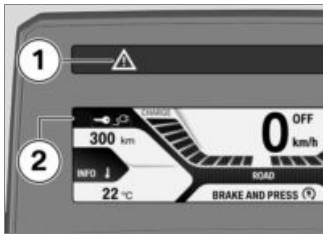
Expert menu (part 2)

- 1 Operating period
- 2 Time travelled at at least 10 km/h
- 3 Time-of-day format
- 4 Date format
- 5 Distance covered unit
- 6 Temperature unit
- 7 Reset
(reset to factory setting)

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 up to three warning symbols at position **2** appearing in succession from right to left. These warning symbols appear in their order of priority. The highest priority is on the right. The 'general' warning light shows red or yellow, de-

pending on the urgency of the warning.

If multiple warnings are active at the same time the three highest-priority warnings are shown.

The possible warnings are listed on the next pages.

Warnings, overview

Indicator and warning lights

Display text

Meaning

	lights up yellow		appears on the display	Electronic immobiliser active (→ 36)
	lights up red		appears on the display	Serious fault in high-voltage battery unit (→ 36)
	lights up yellow		appears on the display	Fault in high-voltage battery unit (→ 36)
	lights up red		appears on the display	Charging cable connected with operational readiness switched on (→ 36)
	lights up yellow		appears on the display	Electric drive in emergency operating mode (→ 37)
	lights up red		appears on the display	Fault in electric drive (→ 37)
	lights up yellow		appears on the display	Insulation fault in the high-voltage section (→ 37)
	lights up red		appears on the display	High-voltage safety connector not connected (→ 37)

Indicator and warning lights	Display text	Meaning
 appears on the display		RBS/TCA fault (→ 38)
 flashes		TCA self-diagnosis not completed (→ 38)
 lights up yellow	 appears on the display	TCA fault (→ 38)
 flashes		ABS self-diagnosis not completed (→ 38)
 lights up		ABS fault (→ 38)
 lights up yellow	 appears on the display	Front light failure (→ 39)
 lights up yellow	 appears on the display	Rear light failure (→ 39)
 lights up yellow	 appears on the display	Failure of front light and rear light (→ 39)

Indicator and warning lights

Display text

Meaning

		appears on the display	Ambient temperature (▮▮▮ 40)
		appears on the display	Anti-theft alarm battery weak (▮▮▮ 40)
 lights up yellow		appears on the display	Anti-theft alarm battery flat (▮▮▮ 40)
 lights up red		appears on the display	Insufficient battery charge current (▮▮▮ 41)
		appears on the display	On-board system voltage low (▮▮▮ 41)
 lights up yellow		appears on the display	On-board system voltage critical (▮▮▮ 41)
 briefly shows yellow		appears on the display	Service overdue (▮▮▮ 41)

Electronic immobiliser active



lights up yellow.



appears on the display.

Possible cause:

The key being used is not authorised for starting, or communication between the key and the electrical machine electronics are disrupted.

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

Serious fault in high-voltage battery unit



lights up red.



appears on the display.

Possible cause:

There is a serious fault in the high-voltage battery. The E-Scooter's high-voltage system will be switched off. A charging procedure is no longer possible. The high-voltage battery on the E-Scooter is possibly faulty.

- Do not continue your journey.
- Have fault rectified as soon as possible by an authorised BMW Motorrad dealer.

Fault in high-voltage battery unit



lights up yellow.



appears on the display.

Possible cause:

There is a fault in the high-voltage battery unit.

- You can continue to ride, but bear in mind that the usual battery performance might not be available.
- Have fault rectified as soon as possible by an authorised BMW Motorrad dealer.

Charging cable connected with operational readiness switched on



lights up red.



appears on the display.

Possible cause:

The charging cable was connected with operational readiness switched on. Release to ride is not possible.

- Operating readiness must be switched off to allow the charging procedure to start or continue.
- Switch off operational readiness (➡ 47).

Electric drive in emergency operating mode



lights up yellow.



appears on the display.



WARNING

Unusual driving behaviour during emergency operation of the electric drive

Risk of accident

- Avoid accelerating sharply and overtaking. ◀

Have fault rectified as soon as possible by an authorised BMW Motorrad dealer.

Fault in electric drive



lights up red.



appears on the display.

Do not continue your journey. Have fault rectified as soon as possible by an authorised BMW Motorrad dealer.

Insulation fault in the high-voltage section



lights up yellow.



appears on the display.

Possible cause:

An insulation fault has been detected. A high-voltage cable has suffered damage.

- Have fault rectified as soon as possible by an authorised BMW Motorrad dealer.

High-voltage safety connector not connected



lights up red.



appears on the display.

Possible cause:

The high-voltage service disconnect has been disconnected and the high-voltage system is deactivated.

- Note the following:



NOTICE

Only an authorised BMW Motorrad dealer is

permitted to disconnect the high-voltage safety connector.◀

RBS/TCA fault



appears on the display.

Possible cause:

The motor control unit has detected a fault. Energy recovery by deceleration of the vehicle is only conditionally available.

- Have fault rectified as soon as possible by an authorised BMW Motorrad dealer.

TCA self-diagnosis not completed



flashes.

Possible cause:

Self-diagnosis did not complete, so the TCA function is not available. The E-Scooter must be ridden at a speed of at least 5 km/h

for TCA self-diagnosis to complete.

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

TCA fault



lights up yellow.



appears on the display.

Possible cause:

The TCA is not available. The rear wheel might spin under acceleration and energy recovery by deceleration of the vehicle is not available.

- Have fault rectified as soon as possible by an authorised BMW Motorrad dealer.

ABS self-diagnosis not completed



flashes.

Possible cause:

Self-diagnosis did not complete, so the ABS function is not available. The E-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



lights up.

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 (➡ 97).
- Have fault rectified as soon as possible by an authorised BMW Motorrad dealer.

Front light failure



lights up yellow.



appears on the display.



WARNING

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

Safety risk

- Replace defective bulbs as soon as possible; always carry

a complete set of spare bulbs if possible.◀

Possible cause:

Low-beam headlight or high beam faulty.

- Replacing bulbs for low-beam and high-beam headlight (➡ 110).

Possible cause:

Parking light defective.

- Have the lamp for the side light replaced by an authorised BMW Motorrad dealer.

Possible cause:

LED flashing turn indicator faulty.

- Replacing LED turn indicators (➡ 112).

Rear light failure



lights up yellow.



appears on the display.

Possible cause:

LED rear light faulty.

- Replacing LED rear light (➡ 112).

Possible cause:

LED flashing turn indicator faulty.

- Replacing LED turn indicators (➡ 112).

Failure of front light and rear light



lights up yellow.



appears on the display.

Possible cause:

The rear light and the headlight bulb are defective.

- Replacing bulbs for low-beam and high-beam headlight (➡ 110).

- Have the bulb for the side light replaced by an authorised BMW Motorrad dealer.
- Replacing LED rear light (🔌 112).

Possible cause:

LED flashing turn indicator faulty.

- Replacing LED turn indicators (🔌 112).

Ambient temperature



appears on the display.

Possible cause:

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



WARNING

Risk of black ice also applicable at over 3 °C

Risk of accident

- Always take extra care when temperatures are low; remember that there is

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

- Ride carefully and think well ahead.

Anti-theft alarm battery weak

– with anti-theft alarm (DWA)^{OE}



appears on the display.



NOTICE

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

Possible cause:

The integral battery in the anti-theft alarm has lost a significant proportion of its original capacity. The anti-theft alarm will only be operational for a limited period if the 12 V battery is disconnected.

- Consult an authorised BMW Motorrad dealer.

Anti-theft alarm battery flat

– with anti-theft alarm (DWA)^{OE}



lights up yellow.



appears on the display.



NOTICE

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

Possible cause:

The integral battery in the anti-theft alarm has lost its entire original capacity. There is no assurance that the anti-theft alarm will be operational if the 12 V battery is disconnected.

- Consult an authorised BMW Motorrad dealer.

Insufficient battery charge current



lights up red.



appears on the display.



WARNING

Failure of the vehicle systems

Risk of accident

- Do not continue your journey. ◀

The 12 V battery is not charging.

Possible cause:

There is a fault in the DC/DC converter.

- Consult an authorised BMW Motorrad dealer.

On-board system voltage low



appears on the display.

Possible cause:

Too many consumers are switched on.

- Charge the 12 V battery (► 114).

The 12 V battery is no longer being fully charged:

- Consult an authorised BMW Motorrad dealer.

On-board system voltage critical



lights up yellow.



appears on the display.

The 12 V battery no longer has enough capacity to supply all the consumers.

Possible cause:

Too many consumers are switched on.

- Charge the 12 V battery (► 114).

The 12 V battery is no longer being fully charged:

- Consult an authorised BMW Motorrad dealer.

Service overdue



shows yellow briefly after the Pre-Ride-Check.



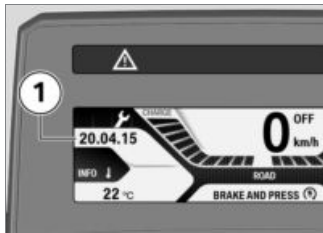
appears on the display.

Possible cause:

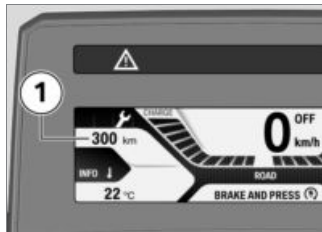
A necessary service has not been carried out.

- Have the service carried out as soon as possible by an authorised BMW Motorrad dealer.

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 "20 April 2015".



If the vehicle covers long distances in the course of the year, under certain circumstances it might be necessary to have it serviced at a date in advance of the forecast due date. If the countdown distance to the early service is less than 1000 km, the countdown distance **1** appears on the display in steps of 100 km and is displayed briefly following the Pre-Ride-Check.



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 Service warning symbol lights up in addition to the general warning light. The Service symbol remains permanently visible in accordance with priorities.



NOTICE

If the service-due indicator appears more than a month before the service date, the current date has to be corrected. This situation can occur if the battery was disconnected. ◀

Service-due indicator



The Service warning symbol lights up in addition to the general warning light. The Service symbol remains permanently visible in accordance with priorities.



NOTICE

If the service-due indicator appears more than a month before the service date, the current date has to be corrected. This situation can occur if the battery was disconnected.◀

Ambient temperature



If the ambient temperature drops to below 3 °C, the temperature display flashes in the multifunction display as a warning of potential black ice. Regardless of the display settings the display automatically switches over to the temperature display when the ambient temperature drops below this threshold for the first time.

Operation

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Ignition switch/steering lock

Keys

You receive 2 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 an authorised BMW Motorrad dealer.

Lock the handlebars

Requirement

Turn the handlebars all the way to left.



- Turn the key to position **1**, while moving the handlebars slightly.
 - » Operational readiness OFF.
 - » Handlebars are locked.
 - » Key can be removed.

Activating operating readiness



- Turn the ignition key to position **1**.
 - » Side lights and all function circuits are switched on.
 - » Pre-Ride-Check is performed. (▮▮▮ 85)
 - » ABS self-diagnosis is in progress. (▮▮▮ 86)
 - » TCA self-diagnosis is in progress. (▮▮▮ 87)
 - » Vehicle is operational.

Switching off operational readiness



- Turn the vehicle key to position **1**.
 - » Light is switched off, side lights remain on for a short time.
 - » Handlebars (steering lock) are not locked.
 - » Vehicle key can be removed.

Emergency off switch (kill switch)



- 1** Emergency off switch (kill switch)

Emergency off switch **1** is a kill switch for switching off the electrical machine quickly.



- A** Electrical machine OFF
B E-Scooter ready for operation

Reverser

Using reverser



WARNING

Less perceptibility of electric propulsion.

Risk of accident

- When you use electric propulsion, you must always bear in mind that the absence of engine noise means that pedestrians and other road users might not be aware of your approach on your E-Scooter.
- Exercise special care and attention when riding. ◀
- Switch on driving readiness (▬▬▬▬ 88).



- Press and hold down button **1** for the entire duration of the parking procedure.



- Enabling is indicated in the multifunction display at position **1** by an arrow pointing

down and at position **2** by a letter **R**.

- Gently turn the electronic throttle grip and reverse-park the vehicle.



Walking speed

E-Scooter reverses at no more than walking speed.

3 km/h

Lights

Low-beam headlight and sidelights

The side lights switch on automatically as soon as the E-Scooter is ready for operation. The side lights then remain on for a short time.



NOTICE

The side lights place a strain on the battery. Do not switch the

ignition on for longer than absolutely necessary.◀

The low-beam headlight switches on automatically as soon as the E-Scooter is ready to ride.

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

High-beam headlight and headlight flasher

- Activating operating readiness (➡ 46).



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

Parking lights

- Switch off operational readiness (➡ 47).

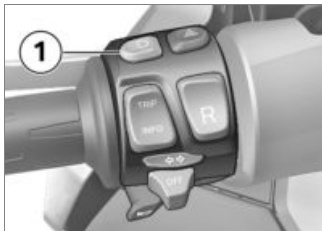


- Immediately after switching off operational readiness, push button **1** to the left and hold it in this position until the parking lights come on.
- Switch operational readiness on and off again to switch off the parking lights.

Day run lights

Using daytime riding light

- Switch on driving readiness (➡ 88).



- Press button **1** to switch on the daytime riding light and switch off the low-beam headlight.



The daytime riding light symbol appears on the display.

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



NOTICE

By comparison with the low-beam headlight, the daytime

running light makes the vehicle more visible to oncoming traffic. This improves daytime visibility.◀

Using automatic daytime riding light



NOTICE

The changeover between daytime riding light and low-beam headlight including front side lights can be effected automatically.◀

- Activating operating readiness (▮▮▮ 46).
- Entering Setup menu (▮▮▮ 54).



WARNING

The automatic daytime riding light does not replace a personal assessment of the light conditions

Risk of accident

- Switch off the automatic daytime riding light in poor light conditions.◀
- Repeatedly short-press button **1** until symbol **2** for the automatic daytime riding light appears.

- Short-press button **3** to switch on the automatic daytime riding light.
- » Option indicator **4** is highlighted.



appears on the display.

- » When ambient brightness drops below a certain value, the low-beam headlight is automatically switched on (e. g. in a tunnel). When sufficient ambient brightness is detected, the daytime riding light is switched back on. When the daytime riding light is active, the daytime riding light symbol is displayed in the multifunction display.
- Short-press button **3** to switch off the automatic daytime riding light.
- » Option indicator **4** is not highlighted.

Manual operation of the light when the automatic system is switched on

If you press the button for the daytime riding light, the daytime riding light is switched off and the low-beam headlight and front side lights are switched on (e. g. when you ride into a tunnel, and the response of the automatic daytime riding light to the change in ambient brightness is delayed). If you press the button again the daytime riding light is reactivated, in other words the daytime riding light is switched on again when ambient light is bright enough.

Hazard warning lights system

Operating hazard warning flashers

- Activating operating readiness (▮▮▮▮ 46).



NOTICE

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



NOTICE

The indicator function replaces the hazard warning lights function while the indicator button is pressed once operating readiness is switched on. The hazard warning lights function becomes active again once the indicator button is released.◀



- Press button **1** to switch on the hazard warning flashers.
» Operational readiness can be switched off.
- Switch on operational readiness and press button **1** again to switch off the hazard warning flashers.

Turn indicators

Operating the turn indicators

- Activating operating readiness (→ 46).



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



Turn indicator cancellation

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

Comfort turn indicator



If button **1** has been pressed to the right or left, the turn indicators are automatically switched

off under the following circumstances:

- Speed below 30 km/h: after 50 m distance covered.
- Speed between 30 km/h and 100 km/h: after a speed-dependent distance covered or in case of acceleration.
- Speed over 100 km/h: after flashing five times.

If button **1** is pressed to the right or left slightly longer, the turn indicators only switch off automatically once the speed-dependent distance covered is reached.

Reading

Select display

- Activating operating readiness (➡ 46).



- Press button **1** briefly to select the display in the field **2**.

The following values can be displayed:

- Trip distance 1 (Trip 1)
- Trip distance 2 (Trip 2)
- Auto trip distance (Trip A), is automatically reset once 6 hours have passed since operating readiness was switched off.
- Setup menu (Setup)



- Press button **1** briefly to select the display in the field **2**. The following average values can be reset:

- Average consumption
- Range gain
- Total consumption
- Total energy recovery
- Time travelled at at least 10 km/h
- Operating period
- Average speed
- Eco points

Resetting trip distance recorder

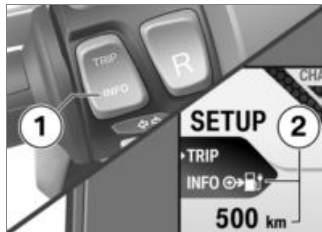
- Activating operating readiness (▮▮▮▮ 46).
- Select distance recorder desired.



- Press button **1** briefly to select the desired trip distance recorder.
- Press and hold down button **1** until the trip distance recorder reading in field **2** is reset.

Resetting the average values

- Activating operating readiness (▮▮▮▮ 46).



- Repeatedly press button **1** briefly until the desired value is displayed.
- Press and hold down button **1** until the reading in field **2** is reset.

Setup menu

Entering Setup menu Requirement

The Setup menu is available only when the vehicle is at a standstill.

- Activating operating readiness (▮▮▮▮ 46).



- To enter the Setup menu, repeatedly short-press button **1** until Setup appears in panel **2**.
- Long-press button **1** to call up the Setup menu.
- » Process completed.

- Long-press button **1** to exit the Setup menu.

Operating the anti-theft alarm

– with anti-theft alarm (DWA)^{OE}

- Activating operating readiness (➡ 46).
- Entering Setup menu (➡ 54).

- » Option indicator **4** is high-lighted.
- » After the operating readiness is switched off, the DWA indicator light in the upper area of the display flashes.
- Press button **3** briefly to switch off the anti-theft alarm.
- » Option indicator **4** is not high-lighted.



- Repeatedly press button **1** briefly until the symbol **2** for the anti-theft alarm is displayed.
- Press button **3** briefly to switch on the anti-theft alarm.

Setting time

- Activating operating readiness (➡ 46).
- Entering Setup menu (➡ 54).



- Repeatedly short-press button **1** until the clock symbol appears.
- Hold down button **2** until the first number you want to change in the time **3** is underscored.
- Short-press button **2** to set the number.
- Hold down button **2** until the next number is underscored.
- Short-press button **2** to set this number as well.
- Press and hold down button **2** until the underscore disappears.

- » This completes the process.
- » The settings you made are accepted.

Setting the date

NOTICE

You can change the date format in the Expert menu.◀

- Activating operating readiness (▮▮▮▮ 46).
- Entering Setup menu (▮▮▮▮ 54).



- In the Setup menu, repeatedly short-press button **1** until the calendar symbol appears.

- Hold down button **2** until the first number you want to change in the date **3** is underscored.
- Short-press button **2** to set the number.
- Hold down button **2** until the next number is underscored.
- Press and hold down button **2** until the underscore disappears.
- » This completes the process.
- » The settings you made are accepted.

Adjusting display brightness

- Activating operating readiness (▮▮▮▮ 46).
- Entering Setup menu (▮▮▮▮ 54).



- Repeatedly short-press button **1** until desired symbol **2** is selected.
- Use button **3** to adjust display brightness.

Adjusting the charge current

- The maximum charge current can be set. The charge current influences the charging time. The charge current level is limited depending on the in-house installation. Check the maximum load capacity of the in-house installation before the charging procedure.

- Adjust charge current with charging cable – charge current not adjustable (➡ 80).

Call up Expert menu

Requirement

The Expert menu is only available at standstill.

- Entering Setup menu (➡ 54).



- Briefly press button **1** repeatedly until symbol **2** is selected.
- Long-press button **3**.
- To return to the Setup menu, hold down button **1**.

Expert menu

Function description

You can switch certain functions on and off and change formats and units of measure in the Expert menu.

All the parameters you set in the Expert menu have effects on the multifunction display.

The Expert function is special. You can use it to reset all the parameters you have changed to their factory default settings.

Selecting information types

Requirement

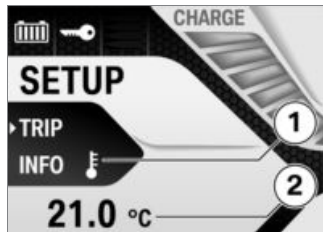
An example is used below to explain how the general information can be displayed in the Expert menu on the multifunction display.

- Activating operating readiness (➡ 46).

- Entering Setup menu (➡ 54).
- Call up Expert menu (➡ 57).



- Repeatedly press button **1** briefly until the desired information type **2**, such as the ambient temperature, is selected.
- Press button **3** briefly to select this information type.
- » Option indicator **4** is highlighted.



The information unit selected is displayed at position **1** and the corresponding value at position **2**.

- Up to 14 information types in the Expert menu can be shown in this field of the multifunction display:
 - Ambient temperature
 - Time and date
 - Average speed
 - Average consumption
 - Current consumption
 - Total consumption
 - Total energy recovery
 - Bonus range

- Eco points
- High voltage
- On-board voltage
- Operating period
- Time travelled at at least 10 km/h

Setting the format and unit

- Activating operating readiness (► 46).
- Entering Setup menu (► 54).
- Call up Expert menu (► 57).
 - » There is an option in the Expert menu to change formats and units; these changes affect the multifunction display, as shown in this example.



- Press button **1** briefly until the desired information type **2**, such as the distance covered, is selected.
- Press button **3** briefly to adjust this information type. The following formats and units can be adjusted:
 - Time-of-day format
 - Date format
 - Distance covered
 - Temperature
 - » The unit can be changed from km to mi at position **4**.

Restoring factory defaults

- This function resets all parameters to their factory default settings, in other words to their as-delivered condition.
- Entering Setup menu (➡ 54).
- Call up Expert menu (➡ 57).



- Repeatedly short-press button **1** until symbol **2** is selected.
- Press and hold down button **3**.



NOTICE

The reset process is aborted if you release the INFO button be-

fore the RESET bar is completely full. ◀

- » As soon as symbol **4** is full the Expert menu is exited and the start-up animation runs through.

Heated handlebar grips

– with heated grips^{OE}

Operating the heated handlebar grips



NOTICE

Heated grips consume a lot of energy and reduce range. Use the heated grips only when really necessary. ◀

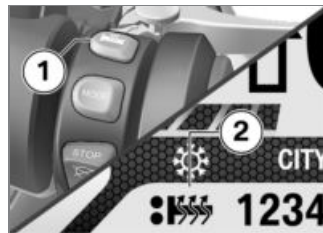
- Switch on driving readiness (➡ 88).



NOTICE

The heating in the heated handlebar grips can be activated

only when the engine is running. ◀



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

The handlebar grips have two-stage heating.



1st heating stage: 50 % heating power



2nd heating stage: 100 % heating power

- » Stage 2 is for heating the grips quickly: it is advisable to switch

back to stage 1 as soon as the grips are warm.

- To switch off the heated grips, press button **1** until heated grip symbol **2** disappears.

Rear seat

Opening/closing rear seat



- Turn vehicle key **1** clockwise.
- Fully open rear seat **2**.
- To close, press the rear of the seat down until it latches shut.



NOTICE

Be careful not to leave the vehicle key inside the helmet

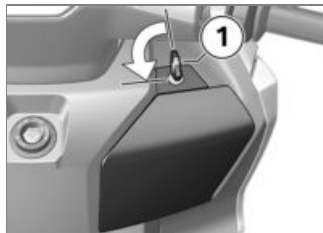
compartment, because without the key the rear seat can no longer be opened.

It is advisable not to remove the vehicle key until the rear seat has been closed, or alternatively to have the second vehicle key with you. ◀

» The rear seat is correctly latched.

Stowage compartments

Front stowage compartment



- To open the right stowage compartment, turn vehicle

key **1** counter-clockwise and press down.

- To close the right stowage compartment, push the lid into the latch and turn vehicle key **1** clockwise.
- The key can be removed in both positions.

Rear stowage compartment

- Open the rear seat.



- Position the helmet as shown in the illustration.
- Close the rear seat.

Adjustment

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Mirrors

Adjusting mirrors



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

Headlight

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.

Brakes

Adjusting brake lever

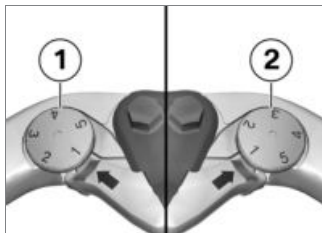


WARNING

Adjusting the handbrake lever while riding.

Risk of accident

- 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.



NOTICE

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

» Adjustment options:

- From position 1: largest span between handlebar grip and brake lever
- To position 5: smallest span between handlebar grip and brake lever

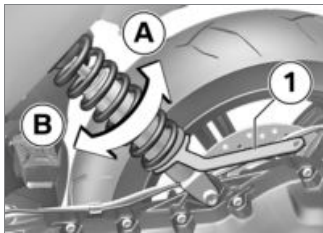
Spring preload

Adjustment

It is essential to set spring preload of the rear suspension to suit the load carried by the E-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 spring strut

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



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



Basic setting of spring preload, rear

Spring strut with spring tension fully relieved (One-up riding without luggage)

preloaded to 4 of 7 clicks (Two-up riding and luggage)

BMW ePOWER

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Principle

The vehicle can be operated without any emissions whatsoever on account of its electric drive.

The special high-voltage battery unit supplies energy to the electrical machine.

In all riding situations, including for example pullaway and acceleration, and also at higher speeds, the torque electrical machine provides dynamic riding characteristics.

The high-voltage battery unit is recharged with a charging cable, for example while the vehicle is parked, or while on the move by energy recovery.

Charging at special power supplies is particularly fast. But it is also possible to recharge at ordinary household sockets for example in private houses.

Energy recovery

The high-voltage battery unit is partly recharged by energy recovery while the vehicle is on the move. Energy recovery ensures that very little energy is lost by braking. When the vehicle decelerates the electrical machine acts as a generator, converting kinetic energy partly or completely into electricity. This partly recharges the high-voltage battery unit, helping to maximise range. There are several ways in which recharging can take place while the vehicle is on the move:

- Throttle-twistgrip position closed / coasting
- When the E-Scooter brakes

In the instrument cluster, the marker is in the **CHARGE** part of the gauge. It is important to think well ahead and reduce speed in good time in order to make the

best possible use of the vehicle's energy recovery capability.

General instructions



NOTICE

Do not leave the E-Scooter parked up for an extended period with too low a state of charge. Before leaving the vehicle parked up for some time, check on the charge status indicator that the high-voltage battery is fully charged. The high-voltage battery will be damaged in the event of excessive deep discharge. ◀



NOTICE

Recharge the high-voltage battery unit when the range is down to 30 km, as otherwise the performance of the electric drive could drop off perceptibly. ◀

DANGER

Handling of electrical current not in compliance with correct procedure.

Injury or damage to property, e.g. by electric shock or fire.

- Comply with the safety regulations.◀

ATTENTION

No check of charging equipment prior to initial use

Damage to property and overloading of the electricity supply system

- Before charging for the first time, have your charging equipment checked at the place of use by a duly trained and qualified electrical specialist.◀

CAUTION

Non-compliance with the instructions posted at the charging station

Injury or damage to property, e.g. by electric shock or fire

- Comply with the instructions posted at the charging station.◀

ATTENTION

Charging equipment in poor condition

Risk of fire, e.g. due to worn contacts or damage

- Use only charging equipment that is in perfect condition.◀

DANGER

Cleaning of charging socket not in compliance with correct procedure.

Injury or damage to property, e.g. by electric shock or fire.

- Have cleaning undertaken only by appropriately trained persons.◀

Repair

NOTICE

Opening the charging-cable components causes irreparable damage and voids the warranty. Only the manufacturer can undertake repair work on the charging cable or replace components (plug, connector or Incable Modul).◀

What to do after an accident

DANGER

Touching high-voltage cables after an accident.

Danger to life due to electric shock hazard.

- After an accident, do not touch high-voltage components, for example the orange-coloured high-voltage cables, or parts in contact with exposed high-voltage cables.◀

CAUTION

Fluid escaping from the high-voltage battery

Risk of caustic burns

- Do not touch any fluid that leaks from the high-voltage battery.◀

If you and your vehicle are involved in an accident, the following additional safety precautions apply in relation to the high-voltage system:

- Secure the scene of the accident.
- Immediately notify rescue workers, police or fire service that they are dealing with a vehicle with high-voltage system.
- Switch off operational readiness.
- Do not inhale gases escaping from the vehicle; if necessary, remain a safe distance from the vehicle.

Charging cable

DANGER

Use of unapproved charging cable.

Injury or damage to property, e.g. by cable fire.

- Use only approved charging cables and charging stations for recharging.
- Service will provide information on approved cables on request.◀

ATTENTION

Use of the charging cable not in compliance with correct procedure

Damage to property, e.g. due to cable fire

- Use the charging cable only for recharging the E-Scooter.
- Do not attempt to extend the charging cable by connecting other cables or adapters.◀

DANGER

Use of damaged charging cable.

Injury or damage to property, e.g. by electric shock or fire.

- Do not use a damaged charging cable.
- Immediately remove a damaged charging cable (housing or cable) from service.◀

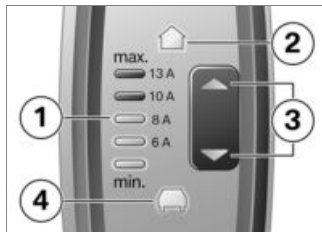
NOTICE

Always fit the protective cap to the on-vehicle connector to keep out moisture and dirt.◀

Use a standard charging cable or Mode3 charging cable (OA) to charge the vehicle. The charging cable can be stored in the storage compartment.

Standard charging cable

With the standard charging cable, charging can be carried out using household sockets with a protective conductor. In the case of a power supply from a household socket, charging is carried out using alternating current.



Standard charging cable – charge current adjustable

- 1: Charge current
- 2: Monitoring of the wall socket for incorrect wiring and protective conductor connection
- 3: Setting the charge current

4: Monitoring the protective conductor and communication to the E-Scooter



Standard charging cable – charge current not adjustable

- 1: Monitoring of the wall socket for incorrect wiring and protective conductor connection
- 2: Monitoring the protective conductor and communication to the E-Scooter

– with Mode3 charging cable^{OA}

Mode3 charging cable

With a special plug, the Mode3 charging cable allows safe charging using sockets of publicly accessible charge stations. The charging procedure is completed quicker than using household sockets.

Charging process

Before charging

DANGER

Non-compliance with the safety information for the electrical outlet.

Injury or damage to property, e.g. by electric shock or fire.

- Comply with the safety instructions for the electricity outlet you are using.◀

ATTENTION

Overloading the power supply connection

Risk of fire, e.g. due to overheating of a domestic power outlet or overloading the electricity supply system

- Check the maximum load capacity of third-party domestic sockets before using them for charging.◀

ATTENTION

Charging current not matched to the grid supply

Risk of fire, e.g. due to overheating of a domestic power outlet or overloading of the electricity supply system

- Before using a domestic power outlet other than that regularly used at home, match the charging current to the electricity supply system.◀

ATTENTION

Setting of the charging current not in compliance with correct procedure

Material damage

- Never set the charging current of the standard charging cable to a setting higher than the maximum permissible continuous charging current of the wall socket.◀

NOTICE

You can interrupt charging at any time and resume later, for example if other power supply is needed for other consumers in the interim, or if you prefer to avoid a high power draw with several consumers all connected at the same time.◀



NOTICE

If interrupted, for example by a temporary power failure, charging resumes automatically as soon as power is restored.◀



NOTICE

Charging at extreme ambient temperatures.

Charging is slowed at extreme ambient temperatures in order to protect the high-voltage battery unit.◀



NOTICE

The standard charging cable does not work at temperatures lower than -32 °C. Before charging, place the charging cable where ambient temperature is between -32 °C and +40 °C.◀

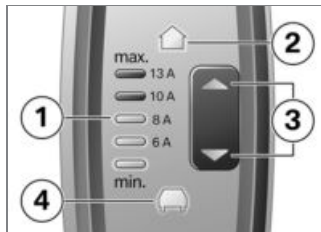
Start charging procedure with charging cable – charge current adjustable

- Switch off operational readiness (▶▶ 47).
- » The charging procedure is only started when operating readiness is switched off. If operating readiness is switched on again during the charging procedure, the charging procedure will be interrupted.
- Open left flap.



- Remove charging socket lid **1**.

- Remove protective cap on the charging plug.



- If necessary, connect standard charging cable to the household socket or Mode3 charging cable (OA) to the charging station. If necessary, observe charging station instructions if charging at a charging station.
- » Standard charging cable carries out all necessary test steps automatically. If the symbol **2** lights up green here, the check was successful. If the symbol **2** lights up red, the check was not successful and the

charging procedure cannot start and the charging cable must not be connected to the vehicle. The following test steps are carried out:

- Check of the wall socket for incorrect wiring
- Check if protective conductor connection is present
- Check of the prerequisites for proper charging
- » Status displays / fault messages are listed in the "Technical Data" section. If these fault messages occur, you can reset them as follows:
- Disconnect standard charging cable from voltage supply by pulling out the plug from the wall socket.
- Reinsert plug after 3 seconds.
- » Critical faults that indicate damage to the standard charging cable will not be reset. These faults include:

- Relay welded (device permanently faulty)
- Temperature sensor faulty
- Fault current test negative



DANGER

Use of damaged charging cable.

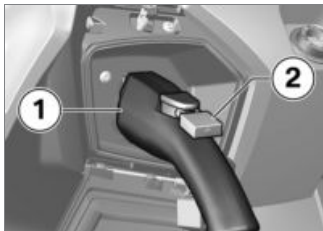
Injury or damage to property, e.g. by electric shock or fire.

- Do not use a damaged charging cable.
- Immediately remove a damaged charging cable (housing or cable) from service.◀
- Have faults remedied by a BMW Motorrad partner as soon as possible.
- Check the maximum permitted continuous charge current of the wall socket.
- Adjust charge current with charging cable – charge current adjustable (➡ 79).

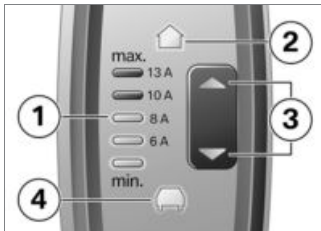
- When charging current is 6 A, charging is carried out in **Si-lent Charge** mode. This minimises noise emission during the charging procedure by reducing the fan speed.



- Connect charging cable **2** to the charging socket **1** of the E-Scooter. Place the charging cable plug and press it in until the lock **3** engages.

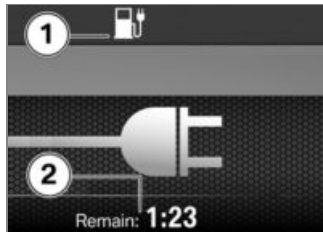


- To protect the charging cable **1** against unauthorised access, a commercially available safety lock **2** can be mounted in the bore hole provided.



- Observe the indicators on the charging cable.
 - » Standard charging cable carries out all necessary test steps automatically. If the symbol lights up **4** green, the check was successful and charging starts. If the symbol **4** lights up red, the check was not successful and the charging procedure cannot start. The following test steps are carried out:
 - Check if protective conductor connection is present
 - Check of the prerequisites for proper charging

» Status displays / fault messages are listed in the "Technical Data" section.



Symbol **1** for the active charging procedure and the remaining charging time **2** are displayed.



The bar display **1** for the state of charge appears. The state of charge is also indicated as a numerical percentage value **2**. After a certain time the display is automatically switched to Stand-by-Modus (energy saving mode).

- In order to display the current state of charge again, briefly press the **INFO** or **TRIP** button.
- » If the charging time is longer than expected, the troubleshooting chart may be of help. (► 132)

Start charging procedure with charging cable – charge current not adjustable

- Switch off operational readiness (► 47).
- » The charging procedure is only started when operating readiness is switched off. If operating readiness is switched on again during the charging procedure, the charging procedure will be interrupted.
- Open left flap.



- Remove charging socket lid **1**.

- Remove protective cap on the charging plug.



- If necessary, connect standard charging cable to the household socket or Mode3 charging cable to the charging station. If necessary, observe charging station instructions if charging at a charging station.
- » Standard charging cable carries out all necessary test steps automatically. If the LED flashes **1** blue, the check was successful. If the LED **1** lights up or flashes red, the check was not successful and the

charging procedure cannot start and the charging cable must not be connected to the vehicle. The following test steps are carried out:

- Check of the wall socket for incorrect wiring
- Check if protective conductor connection is present
- Check of the prerequisites for proper charging
 - » Status displays / fault messages are listed in the "Technical Data" section. If these fault messages occur, you can reset them as follows:
- Disconnect standard charging cable from voltage supply by pulling out the plug from the wall socket.
- Reinsert plug after 10 seconds.
 - » Faults that indicate damage to the standard charging cable will not be reset. These faults include:
- Critical faults

- Temperature sensor faulty
- Fault current test negative

DANGER

Use of damaged charging cable.

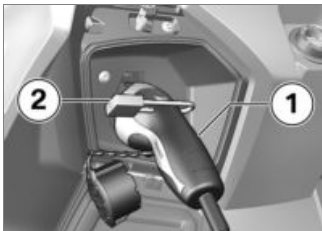
Injury or damage to property, e.g. by electric shock or fire.

- Do not use a damaged charging cable.
- Immediately remove a damaged charging cable (housing or cable) from service.◀
- Have faults remedied by a BMW Motorrad partner as soon as possible.
- Check the maximum permitted continuous charge current of the wall socket.
- Adjust charge current with charging cable – charge current not adjustable (■ 80).
- When charging current is 6 A, charging is carried out in **Si-**

lent Charge mode. This minimises noise emission during the charging procedure by reducing the fan speed.



- Press unlocking button **3** and pull off lid.
- Connect charging cable **2** to the charging socket **1** of the E-Scooter. Place the charging cable plug and press it in until the lock **3** engages.

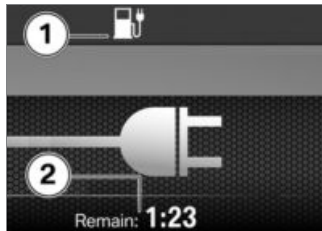


- To protect the charging cable **1** against unauthorised access, a commercially available safety lock **2** can be mounted in the bore hole provided.



- Observe the indicators on the charging cable.
 - » Standard charging cable carries out all necessary test steps automatically. If the LED **2** flashes blue, the check was successful and charging starts. If the LED **2** lights up or flashes red, the check was not successful and the charging procedure cannot start. The following test steps are carried out:
 - Check if protective conductor connection is present
 - Check of the prerequisites for proper charging

» Status displays / fault messages are listed in the "Technical Data" section.



Symbol **1** for the active charging procedure and the remaining charging time **2** are displayed.



The bar display **1** for the state of charge appears. The state of charge is also indicated as a numerical percentage value **2**. After a certain time the display is automatically switched to Stand-by-Modus (energy saving mode).

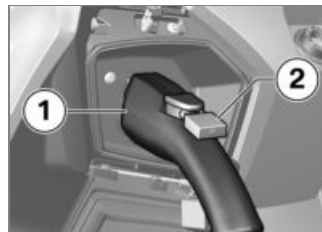
- In order to display the current state of charge again, briefly press the **INFO** or **TRIP** button.

End charging procedure with charging cable – charge current adjustable Requirement

When ending the charging procedure, make sure to observe the sequence of the following steps.

Requirement

Unlock cable connector before pulling it off. If charging at a charging station, make sure to end the charging procedure at the charging station before pulling off the charging cable.

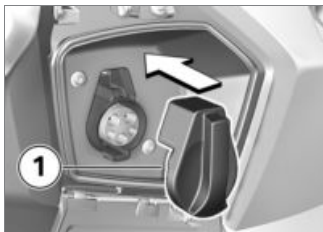


- If necessary, pull off the safety lock **2** from the charging cable **1**.



- Press the release button **3** and pull off the charging cable **2**

from the charging socket **1** on the E-Scooter.



- Place charging connection lid **1**.
- If necessary, pull off standard charging cable at the household socket or pull off Mode3 charging cable at the charging station.
- Place protective cap on the charging plug.
- Store standard charging cable in the storage compartment.

End charging procedure with charging cable – charge current not adjustable

Requirement

When ending the charging procedure, make sure to observe the sequence of the following steps.

Requirement

Unlock cable connector before pulling it off. If charging at a charging station, make sure to end the charging procedure at the charging station before pulling off the charging cable.



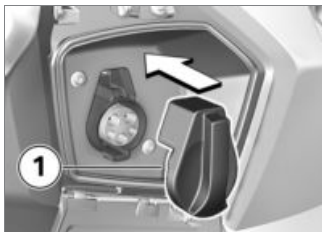
- If necessary, pull off the safety lock **2** from the charging cable **1**.



- Press the release button **3** and pull off the charging cable **2**

from the charging socket **1** on the E-Scooter.

- Place lid on the charging cable.



- Place charging connection lid **1**.
- If necessary, pull off standard charging cable at the household socket or pull off Mode3 charging cable at the charging station.
- Place protective cap on the charging plug.
- Store standard charging cable in the storage compartment.

Charge current setting

The charge current for the E-Scooter can be adjusted.

Adjust charge current with charging cable – charge current adjustable



ATTENTION

Charging current not matched to the grid supply

Risk of fire, e.g. due to overheating of a domestic power outlet or overloading of the electricity supply system

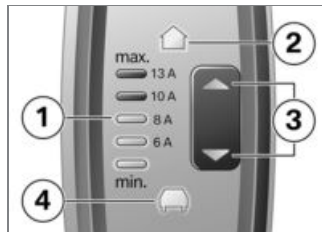
- Before using a domestic power outlet other than that regularly used at home, match the charging current to the electricity supply system.◀



NOTICE

The charge current can also be set in the multifunction display. The E-Scooter will be charged at

the lower charge current if different values are set for the charge current on the charging cable and in the display.◀



- Check the maximum permitted continuous charge current of the wall socket.
- During the charging procedure, either adjust the charge current directly on the standard charging cable using the buttons **3** or on the charging station.
- » After two seconds, the set value is automatically saved. This process is indicated by

the relevant charge current indicator **1** flashing twice.

- Adjust charge current in the Setup menu of the multifunction display:
- Adjust charge current with charging cable – charge current not adjustable (▮▮▮ 80).
- When charging current is 6 A, charging is carried out in **Silent Charge** mode. This minimises noise emission during the charging procedure by reducing the fan speed.

Adjust charge current with charging cable – charge current not adjustable



ATTENTION

Charging current not matched to the grid supply

Risk of fire, e.g. due to overheating of a domestic power outlet or

overloading of the electricity supply system

- Before using a domestic power outlet other than that regularly used at home, match the charging current to the electricity supply system.◀
- Activating operating readiness (▮▮▮ 46).
- Entering Setup menu (▮▮▮ 54).



- Press button **1** briefly repeatedly until symbol **2** for charge current is displayed.
- Briefly press the button **3** to adjust the charge current.

» The charge current can be adjusted in various stages.

Using the ePOWER energy display efficiently

Energy recovery and energy consumption depend on the riding style. The riding style can be optimised with the help of the power display.



Energy is recovered when the vehicle is decelerated (not in the SAIL riding mode) and braked and is displayed in the **CHARGE 1**

field of the drive gauge. Energy consumption while riding can be optimised by efficient acceleration and is displayed in the ePOWER **2** field of the drive gauge.

There are four possible states of the two fields, which each consist of 10 segments:

- Segment not available (segments have a red background)
- Segment activated (segments have a blue background)
- Segment limited (segments have a grey background)
- Segment not activated (empty)

Setting riding mode

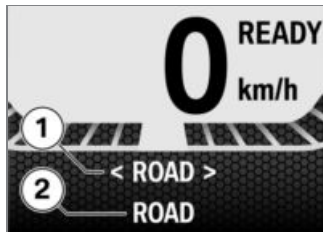
- Activating operating readiness (➡ 46).



- Repeatedly press button **1** briefly until the riding mode you want is selected.



See the section entitled "Engineering details" for more information on the various ride modes that can be selected.◀



The first selectable riding mode **1** and the riding mode currently active **2** are displayed.

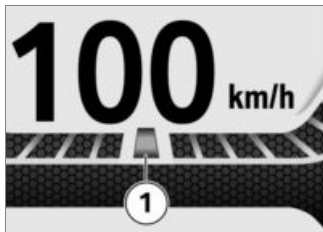
ROAD: Standard mode.

ECO PRO: For riding with restricted acceleration and range improvement of up to 20 %.

DYNAMIC: For dynamic riding.

SAIL: For deceleration-free and steady coasting. The vehicle is decelerated only by the riding resistances and no energy flows

back from the electrical machine and the high-voltage battery.



The mark **1** must be exactly in the middle of the drive gauge if you wish to use the *SAIL* riding mode.

Range

Requirement

The range depends on the riding style and shows the distance available until the next charge.



Display of the range trend **1** given the current riding style:



rising



constant



declining

- The range **2** indicates how much further you can travel until the next charge.

Riding

Safety information	84
Comply with checklist.....	85
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Running in	90
Brakes	91
Park E-Scooter	92
Securing E-Scooter for transportation	93

Safety information

Tampering



ATTENTION

Tampering with the E-Scooter

Damage to the affected parts, failure of safety-relevant functions. Damage due to tampering is not covered by the warranty.

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

Rider's equipment

Do not ride without the correct clothing! BMW Motorrad recommends always wearing the following rider's equipment:

- 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



WARNING

Handling adversely affected by overloading and imbalanced loads

Risk of falling

- Do not exceed the permissible gross weight and be sure to comply with the instructions on loading.◀
- 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 and the speed limit for riding with topcase fitted, as stated on the label inside the case (see also the section entitled "Accessories").◀

Speed

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

- Settings of the spring-strut and shock-absorber system
- Imbalanced load
- Loose clothing
- Insufficient tyre pressure
- Poor tyre tread

- Mounted luggage systems such as a topcase

Tampering



ATTENTION

Tampering with the E-Scooter

Damage to the affected parts, failure of safety-relevant functions. Damage due to tampering is not covered by the warranty.

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

Comply with checklist

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

Requirement

Always before riding off:

- Check the state of charge of the high-voltage battery.

- Check operation of the brake system.
- Check operation of the lights and signalling equipment.
- Checking tyre tread depth (➡ 109).
- Check that topcase and luggage are securely fastened.

Requirement

Every 10th recharge:

- Adjusting spring preload for spring strut (➡ 63).
- Checking front brake pad thickness (➡ 103).
- Check rear brake pad thickness (➡ 104).
- Check the brake-fluid level, front brakes (➡ 106).
- Checking brake-fluid level, rear brakes (➡ 107).
- Check coolant level (➡ 108).

Starting

Pre-Ride-Check

The instrument cluster runs a test of the display and the indicator and warning lights when operational readiness is switched on. This test is known as the Pre-Ride-Check. It consists of 2 phases. The Pre-Ride-Check is aborted as soon as the brake is applied or the starter button pressed.

Phase 1

The 'general' warning light and the symbol for the electrical machine electronics show red. The 'reserve' light shows yellow.

Phase 2

The 'general' warning light and the symbol for the electrical machine electronics change from red to yellow.

As soon as the sequence of images reaches the end the ori-

ginal display (background and values such as TRIP, INFO etc.) reappears.

The power gauge shows the scale-limit values in both directions (CHARGE and ePOWER).

- » If temporary warnings are active the corresponding indicators remain visible for approximately 5 seconds longer.

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



WARNING

Faulty warning lights

No indication of malfunctions

- Check all the telltale and warning lights. ◀
- Have fault rectified as soon as possible by 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 operating readiness.

Phase 1

- » System components are checked at standstill.



flashes.

Phase 2

- » System components are checked when riding off.
 - ABS self-diagnosis completed. The ABS symbol is no longer displayed.
- Check all the indicator and warning lights.



ABS self-diagnosis not completed

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

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

- You can continue to ride. Bear in mind that the ABS function is not available or the functionality might be subject to certain restrictions.
- Have fault rectified as soon as possible by an authorised BMW Motorrad dealer.

TCA self-diagnosis

BMW Motorrad TCA performs a self-diagnosis to ensure its operational readiness. Self-diagnosis is performed automatically when you switch on operating readiness.

Phase 1

- » System components are checked at standstill.



flashes.

Phase 2

- » System components are checked when riding off.
 - TCA self-diagnosis completed. The RBS symbol is no longer displayed.
- Check all the indicator and warning lights.



TCA self-diagnosis not completed

The TCA function is not available, because self-diagnosis did not complete. (The E-Scooter has to reach a defined minimum speed with the motor running for the wheel sensors to be checked: min 5 km/h)

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

- You can continue to ride. Bear in mind that the TCA function is not available or the functionality might be subject to certain restrictions.
- Have fault rectified as soon as possible by an authorised BMW Motorrad dealer.

E-Scooter ready for operation

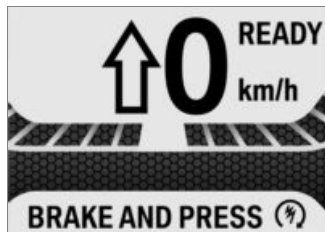
When the Pre-Ride-Check and the ABS self-diagnosis complete, the E-Scooter with all consumers is ready for operation.



NOTICE

To preserve the 12 V battery, only use active electrical consumers for as long as is absolutely necessary and switch off operating readiness. ◀

E-Scooter is operational



The E-Scooter is operational when the starter button is pressed with the brake applied. The **READY** symbol and the arrow are displayed. All systems are operational. When the emergency-off switch is pressed the E-Scooter is no longer operational.

NOTICE

Riding at low temperatures. At low ambient temperatures (below 0 °C) the rates at which a battery can output power and re-

charge are reduced on account of the sharp rise in the cells' internal resistance. ◀

NOTICE

High-voltage battery unit at elevated temperature when vehicle is stopped.

In exceptional cases it is possible for the high-voltage battery unit to warm up to a high temperature while the vehicle is at a standstill (e.g. in extreme ambient temperatures and direct sunlight). If the high-voltage battery unit overheats the E-Scooter is not operational. ◀

NOTICE

Overheating high-voltage battery when riding.

Very high temperatures (over 35 °C) can impair the service life of the battery cells. If the high-voltage battery overheats while

riding, the drive power is reduced in steps to cool down the high-voltage battery. The ePOWER display in the instrument cluster will decline. Should the temperature continue to rise, stop the vehicle until the high-voltage battery has cooled down. If the power display falls to 0, the E-Scooter is not operational and the vehicle will come to a halt. ◀

Switching on driving readiness

- Activating operating readiness (▮▮▮ 46).
- » Pre-Ride-Check is performed. (▮▮▮ 85)
- » ABS self-diagnosis is in progress. (▮▮▮ 86)
- » TCA self-diagnosis is in progress. (▮▮▮ 87)
- Operate the brake.



- Press starter button 1.



NOTICE

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

- » The E-Scooter is drive-ready.
- » Try working through the troubleshooting chart if the E-Scooter is not operationally ready to ride. (132)

Riding with ePOWER



WARNING

Less perceptibility of electric propulsion.

Risk of accident

- When you use electric propulsion, you must always bear in mind that the absence of engine noise means that pedestrians and other road users might not be aware of your approach on your E-Scooter.
- Exercise special care and attention when riding.◀

Energy recovery by deceleration

The high-voltage battery unit is partly recharged by energy recovery. When the vehicle decelerates the electrical machine acts as a generator, converting kinetic energy to electricity.

Deceleration depends on the riding mode you select, and on the

position of the electronic throttle twistgrip. The less you twist the electronic throttle twistgrip, the sharper the vehicle decelerates. Energy is recovered and the high-voltage battery unit recharges. Deceleration with the electronic throttle twistgrip in the closed position is similar to light braking.

Energy can be recovered when the following conditions are satisfied:

- E-Scooter is on the move.
- Speed is higher than approximately 5 km/h.

Energy cannot be recovered in the following situations:

- The high-voltage battery unit is fully charged.
- The high-voltage battery unit is at a very high or very low temperature. In winter or summer there is a possibility of energy recovery being temporarily

unavailable just after you pull away.



WARNING

Without energy recovery there is no braking effect from the electric drive. The E-Scooter could coast further than usual.

Risk of accident

- Always be prepared to brake.◀

Riding situations for deceleration

Whenever you know that you are about to decelerate as you ride, you can make use of the deceleration phase for energy recovery. The following are typical riding situations suitable for use for this purpose:

- Deceleration on a descent
- Deceleration approaching a red traffic light

Avoid late or sharp braking. Instead, make use of the energy recovery function to slow the vehicle.

SAIL

The electric drive enables you to coast without energy consumption and energy recovery. This is the SAIL mode. Thinking ahead as you ride will help reduce energy consumption and extend the vehicle's range. No energy is recovered when the vehicle is coasting in SAIL mode.

It is a good idea to select SAIL mode when you are on a stretch of road that will not require you to brake. The following are typical riding situations suitable for use for this purpose.

Riding situations for SAIL mode

- Coasting on a straight descent free of obstructions

- Coasting to a slower speed or stop on a stretch of road free of obstructions

Running in

Brake pads

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



WARNING

New brake pads

Longer stopping distance, risk of accident

- Apply the brakes in good time.◀

Tyres

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



WARNING

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

Risk of accident

- Ride carefully and avoid extremely sharp inclines.◀

Brakes

How can stopping distance be minimised?

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. When high braking pressure is applied sharply 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.

Descending mountain passes



WARNING

Braking only with the rear brake on mountain descents.

Brake fade. Destruction of the brakes due to overheating.

- Use both front and rear brakes, and make use of the energy recovery function 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.

**WARNING****Wetness and dirt result in diminished braking efficiency**

Risk of accident

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

Park E-Scooter**Side stand**

- Switch off driving readiness.

**ATTENTION****Poor ground underneath the stand**

Risk of damage to parts if vehicle topples

- Always check that the ground under the stand is level and firm.◀
- Extend the side stand and prop the E-Scooter on the stand.
 - » Extending the side stand automatically applies the parking brake. It prevents the vehicle from rolling away.

**ATTENTION****Additional weight placing strain on the side stand**

Risk of damage to parts if vehicle topples

- Do not sit or lean on the vehicle while it is propped on the side stand.◀
- Turn the handlebars all the way to left.

Centre stand

- Switch off driving readiness.

**ATTENTION****Poor ground underneath the stand**

Risk of damage to parts if vehicle topples

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

**ATTENTION****Centre stand folds in due to sharp movements**

Risk of damage to parts if vehicle topples

- Do not lean or sit on the vehicle with the centre stand extended.◀
- Extend the centre stand and lift the E-Scooter on to the stand.

Securing E-Scooter for transportation

- Make sure that all components that might come into contact with straps used to secure the motorcycle are adequately protected against scratching (e.g. using adhesive tape).

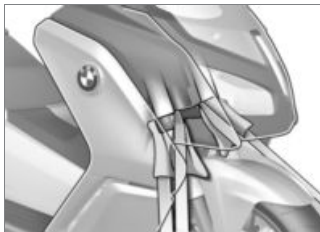


ATTENTION

Vehicle topples to side when being lifted on to stand

Risk of damage to parts if vehicle topples

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



ATTENTION

Trapping of components

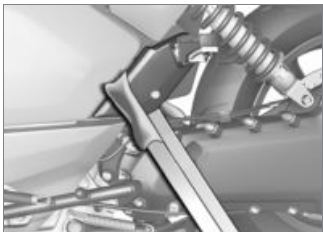
Component damage

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

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



- Secure the right rear tensioning strap to the footrest retaining plate.



- Secure the left rear tensioning strap to the footrest retaining plate.
- Tighten all the straps uniformly; the suspension of the E-Scooter should be compressed as tightly as possible tightly front and rear.

Engineering details

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Anti-lock brake system (ABS)	96
Torque Control Assist (TCA).....	97
Riding mode	98

General instructions

To find out more about engineering, go to:

bmw-motorrad.com/technology

Anti-lock brake system (ABS)

How does ABS work?

The amount of braking force that can be transferred to the road depends on factors that include the coefficient of friction of the road surface. Loose stones, ice and snow or a wet road all have much lower coefficients of friction than a clean, 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 it registers the actual circumstances, the system reacts instantly and adjusts braking force accordingly to achieve optimum braking.

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 (burn-out).

- Rear wheel locked for a lengthy period, for example while descending off-road.

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

What significance devolves on regular maintenance?



Brake system not regularly serviced

Risk of accident

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

Reserves for safety

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

Take care when cornering! When you apply the brakes on a corner, the vehicle's weight and momentum take over and even BMW Motorrad ABS is unable to counteract their effects.

Torque Control Assist (TCA)

The TCA limits torque as a function of rear-wheel slip.

In order to help optimise the rider's control of drive torque, the electrical machine's electronic controller monitors rear wheel speed and reduces drive torque if a plausibility limit is overshot.

The TCA assists the rider on pullaway in particular and prevents uncontrolled spin of the rear wheel on low-grip road surfaces.

In maximum energy recovery phases, the TCA also slows the vehicle, helping to prevent the rear wheel from locking on slippery surfaces. The function is similar to that of ABS when the rear brake is applied.

Riding mode Selection

Four riding modes enable the characteristics of the E-Scooter to adapt to the road and traffic conditions and the rider's style of riding:

- ROAD (standard mode)
- SAIL (rolling mode)
- DYNAMIC (sport mode)

- ECO PRO (ecologically optimised mode)

You can switch modes on the move.

Each of these modes produces perceptible differences in the way the E-Scooter behaves. The mode last selected is automatically reactivated after operational readiness has been switched off and then on again.

Changing riding modes affects the following parameters, which are shown accordingly in the CHARGE or ePOWER panels of the drive display:

- Energy recovery by vehicle deceleration (artificial drag torque)
- Energy consumption (acceleration)

ROAD

In ROAD mode, energy recovery by vehicle deceleration is medium and the vehicle has its full acceleration. The ROAD mode is the default mode.

SAIL

In SAIL mode the vehicle rolls along smoothly and without slowing. There is no energy recovery by deceleration of the vehicle. Energy recovery when the brakes are applied remains available.

DYNAMIC

In DYNAMIC mode, energy recovery by vehicle deceleration is maximised. This, in combination with maximised acceleration performance, imparts a dynamic feel to the ride.

ECO PRO

In ECO PRO mode, energy recovery by vehicle deceleration is maximised and acceleration is reduced. This can suffice to optimise range by approximately 10-20 %. The ECO PRO mode is designed for maximum range.

Maintenance

General instructions.....	102
Standard toolkit	102
Brake system	103
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Rims and tyres.....	109
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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.

**DANGER**

Maintenance and repair work not in compliance with correct procedure.

Danger to life due to electric shock hazard.

- Work not described here requires special tools and a thorough knowledge of the technology involved.
- Carry out only the tasks described in this section of the manual. Perform the tasks described only with the ignition switched off. If in doubt, consult your authorised BMW Motorrad dealer.◀

**DANGER**

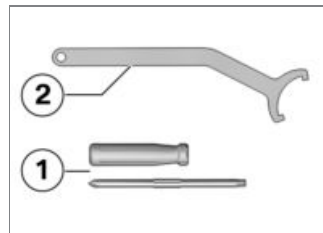
Work on the high-voltage system.

Danger to life

- The vehicle's high-voltage system is a self-contained system. Safety is ensured as long as no work is attempted on the technical components.
- Have all modifications and work on the high-voltage system carried out by an authorised

BMW Motorrad dealer with suitably trained personnel.◀

Standard toolkit



- 1** Reversible screwdriver blade
Phillips PH1 and Torx T25
– Removing body panels.
- 2** Hook wrench
– Adjusting spring preload for spring strut (► 63).

Brake system

Checking function of brakes

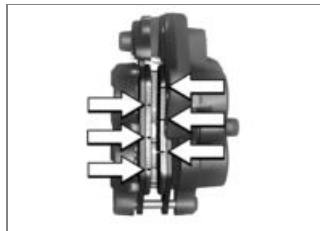
- Pull the right brake lever.
 - » There is a clearly perceptible pressure point.
 - Pull the left brake lever.
 - » There is a clearly perceptible pressure point.
 - To test the parking brake, extend the side stand and try to push the E-Scooter forward and back.
 - » E-Scooter cannot be moved.
- If a clear pressure point is not perceptible or if the Scooter can be pushed in either direction:
- Have the brakes checked by an authorised BMW Motorrad dealer.

Checking front brake pad thickness

- Make sure the ground is level and firm and place the E-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:



WARNING

Brake-pad thickness less than permissible minimum

Diminished braking effect, damage to the brakes

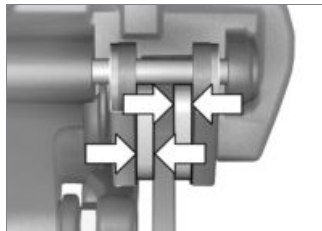
- In order to ensure the dependability of the brake system, do not permit the brake pads to wear past the minimum permissible thickness. ◀
- Have the brake pads replaced by an authorised BMW Motorrad dealer.

Check rear brake pad thickness

- Make sure the ground is level and firm and place the E-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 brake pads are worn past the minimum permissible thickness:



ATTENTION

Parked vehicle rolls away due to lack of braking power if brake pads are worn past their minimum permissible thickness

Risk of damage to parts if vehicle topples despite extended side stand

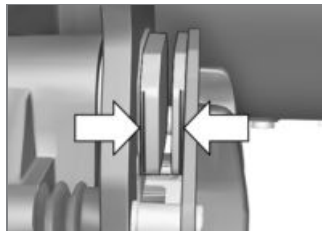
- Have the brake pads of the parking brake replaced before they wear to their minimum permissible thickness.◀
- Have the brake pads replaced by an authorised BMW Motorrad dealer.

Checking brake-pad thickness, parking brake

- Make sure the ground is level and firm and place the E-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 of parking brake

min 1.0 mm

If the wear indicating marks are no longer visible:

**WARNING****Brake-pad thickness less than permissible minimum**

Diminished braking effect, damage to the brakes

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

Check the brake-fluid level, front brakes**WARNING****Not enough brake fluid in brake fluid tank**

Considerably reduced braking power due to air in the brake system

- Adjust the riding mode immediately until the fault is rectified.
- Check the brake-fluid level at regular intervals. ◀
- Make sure the ground is level and firm and place the E-Scooter on its centre stand.



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

**NOTICE**

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



Brake fluid level, front

Brake fluid, DOT4

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

If the brake fluid level drops below the permitted level:

- Have the fault rectified as soon as possible by an authorised BMW Motorrad dealer.

Checking brake-fluid level, rear brakes

WARNING

Not enough brake fluid in brake fluid tank

Considerably reduced braking power due to air in the brake system

- Adjust the riding mode immediately until the fault is rectified.
- Check the brake-fluid level at regular intervals.◀
- Make sure the ground is level and firm and place the E-Scooter on its centre stand.



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



NOTICE

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)

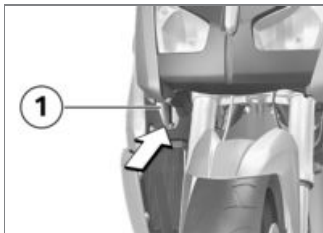
If the brake fluid level drops below the permitted level:

- Have the fault rectified as soon as possible by an authorised BMW Motorrad dealer.

Coolant

Check coolant level

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



- Check coolant level **1** by visual inspection. Viewing direction: On the left from in front, between front suspension and radiator cowl.



Specified coolant level in expansion pipe

Between MIN and MAX marks (cooling circuit cold)

- The side panel can be removed to facilitate visual inspection.
- Removing the side trim panel (➡ 112).

If the coolant drops below the permitted level:

- Have the coolant topped up as soon as possible by an authorised BMW Motorrad dealer.

Tyres

Checking tyre pressure



WARNING

Incorrect tyre pressure.

Impaired handling characteristics of the Scooter. Shorter useful tyre life.

- Always check that the tyre pressures are correct. ◀



WARNING

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

Sudden loss of tyre pressure

- Install valve caps fitted with rubber sealing rings and tighten firmly. ◀
- Check tyre pressures against the data below.

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

If tyre pressure is too low:

- Correct tyre pressure.

Rims and tyres

Checking rims

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

Checking tyre tread depth



WARNING

Riding with badly worn tyres

Risk of accident due to impaired handling

- If applicable, have the tyres changed in good time before they wear to the minimum tread depth permitted by law. ◀
- Make sure the ground is level and firm and place the E-Scooter on its stand.
- Measure the tyre tread depth in the main tread grooves with wear marks.



NOTICE

Wear indicators are built into the main profile grooves on each tyre. The tyre is worn out when the tyre tread has worn down to the level of the marks. The locations of the marks are indicated on the edge of the tyre, e.g.

by the letters TI, TWI or by an arrow. ◀

If the tyre tread is worn to minimum:

- Replace tyre or tyres, as applicable.

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.

Detailed information is available from your authorised BMW Motorrad dealer or in the internet at:

bmw-motorrad.com

Light source

Replacing bulbs for low-beam and high-beam headlight

- Switch off operational readiness.
- Removing the side trim panel (→ 112).
- Remove the right side panel to replace the bulb for the low-beam headlight.
- Remove the left side panel to replace the bulb for the high-beam headlight.



- Disengage cover **1** to replace the bulb for the high-beam headlight; disengage cover **2** to replace the bulb for the low-beam headlight.



- Disconnect plug **1**.



- Disengage spring clip **1** from the latches and swing it up.
- Remove bulb **2**.
- 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 bulb by the base only, in order to keep the glass free of foreign matter.



- Insert bulb **1**, making sure that tab **2** is correctly seated.
- Engage spring retainer **3** in the catches.



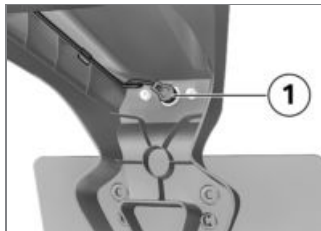
- Connect connector **1**.



- Install cover **1** or cover **2**, as applicable.
- Installing side panel (111 113).

Replacing bulb for number-plate light

- Switch off operational readiness.



- Pull number-plate light bulb **1** out of the light housing.



- Remove the bulb from the socket.

- Replace the defective bulb.



Light source for the
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 socket.



- Insert number plate light **1** into the light housing.

Replacing daytime riding light

The daytime riding light can be replaced only as a complete unit.

- Consult an authorised BMW Motorrad dealer.

Replacing LED turn indicators

The front and rear LED turn indicators can be replaced only as a complete unit.

- Consult an authorised BMW Motorrad dealer.

Replacing LED rear light

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

- Consult an authorised BMW Motorrad dealer.

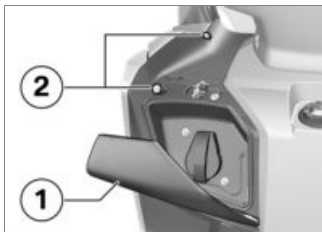
Body panels

Removing the side trim panel

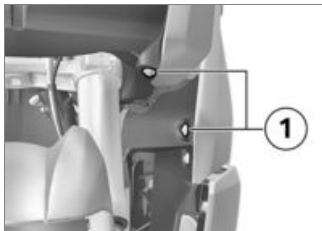


NOTICE

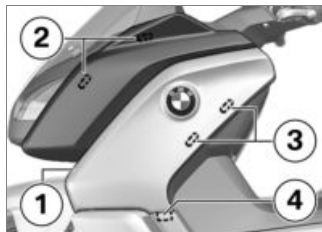
This description applies for the right-hand fairing side panel, but also applies accordingly for the left-hand fairing side panel.◀



- Open flap 1.
- Remove screws 2.



- Remove screws 1.



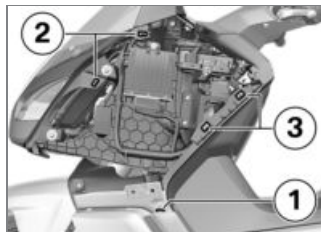
- Detach side trim panel 1 from the mountings 2 and 3.
- Raise side trim panel slightly at position 4 and remove.

Installing side panel

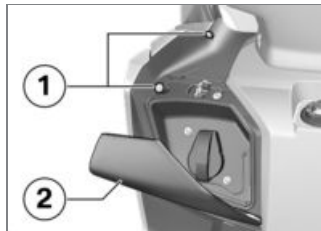


NOTICE

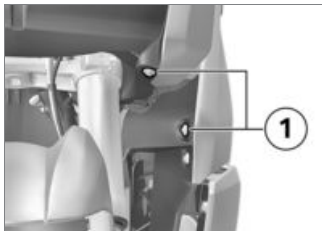
This description applies for the right-hand fairing side panel, but also applies accordingly for the left-hand fairing side panel. ◀



- Seat the side panel in mount 1.
- Tilt the side panel up and push it into locators 2 and 3.



- Install screws 1.
- Close lid 2.



- Install screws **1**.

Battery

General instructions

Correct upkeep, recharging and storage will prolong the life of the 12 V battery and are essential if warranty claims are to be considered.

Compliance with the points below is important in order to maximise the life of the 12 V battery:

- Keep the surface of the battery clean and dry.

- Always comply with the notes set out below when charging the 12 V battery:



ATTENTION

Vehicle electronics (e.g. clock) discharging the connected 12 V battery

- 12 V battery is fully discharged; this voids the guarantee
- Connect a float charger to the 12 V battery if the vehicle is to remain out of use for more than four weeks.◀



ATTENTION

Charging the connected 12 V battery via the battery terminals

Damage to the vehicle electronics

- Disconnect the 12 V battery at the battery terminals before charging.◀



ATTENTION

Charging a fully discharged 12 V battery using the 12 V power socket

Damage to the vehicle electronics

- Always charge the **disconnected**, fully discharged 12 V battery at the terminals (battery voltage smaller than 12 V, indicator lights and multifunction display remain off when ignition is switched on).◀

Charging 12 V battery

The E-Scooter is neither drive-ready nor operationally ready. Check whether the 12 V battery is flat:

- Activating operating readiness (▮▶ 46).
 - » Note the multifunction display:
- If you switch on operational readiness and the multifunction display fails to light up,

the battery is completely flat. The 12 V battery will have to be disconnected from the on-board circuits and charged with the battery charger connected directly to the battery terminals.

- If the multifunction display switches on, the 12 V battery is not completely flat. The 12 V battery can remain connected to the on-board circuits and can be recharged via the 12 V power socket.
- Switch off operational readiness (► 47).
- Removing the side trim panel (► 112).
- Charge the 12 V battery using a suitable charger. In this process, comply with the operating instructions of the charger.



NOTICE

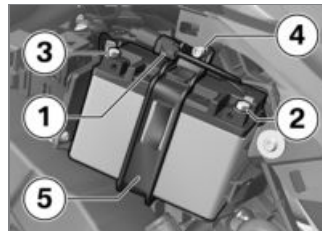
The battery has to be recharged at regular intervals in the course

of a lengthy period of disuse. See the instructions for caring for your battery. Always fully recharge the battery before restoring it to use.◀

- Installing side panel (► 113).

Replacing 12 V battery

- with anti-theft alarm (DWA)^{OE}
- If applicable, switch off the anti-theft alarm.◀
- Switch off operational readiness.
- Removing the side trim panel (► 112).



- Disconnect plug **1** for the right-hand turn indicator.



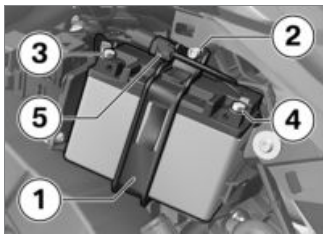
ATTENTION

Battery not disconnected in accordance with correct procedure

Risk of short-circuit

- Always proceed in compliance with the specified disconnection sequence.◀
- Remove screw **2** and detach battery earth lead.
- Remove screw **3** and detach positive battery cable.

- Remove screw **4** and take off the retaining bracket **5**.
- Remove the 12 V battery from the battery holder.
- Slip the 12 V battery into the battery holder.



- Fit retaining bracket **1** on the 12 V battery.
- Install screw **2**.



ATTENTION

Battery not connected in accordance with correct procedure

Risk of short-circuit

- Always proceed in compliance with specified installation sequence.◀
- Hold the positive battery cable in position and install screw **3**.
- Hold the negative battery cable in position and install screw **4**.
- Connect plug **5** for the right-hand turn indicator.
- Installing side panel (➡ 113).

Fuses

Removing fuse



ATTENTION

Jumpering of blown fuses

Risk of short-circuit and fire

- Never attempt to jumper a blown fuse.
- Always replace a defective fuse with a new fuse of the same amperage.◀
- Switch off operational readiness.

- Remove the right side panel.



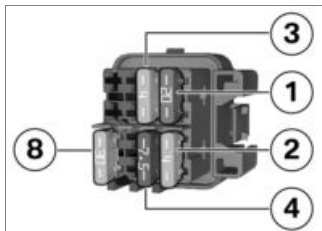
- Open fuse box **1** by pushing the latches apart, lift off the fuse cover and remove the blown fuse.



NOTICE

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.



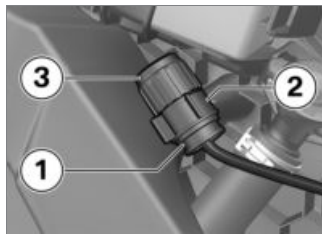
NOTICE

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.
- Installing side panel (➡ 113).

Diagnostic connector Disengaging diagnostic connector

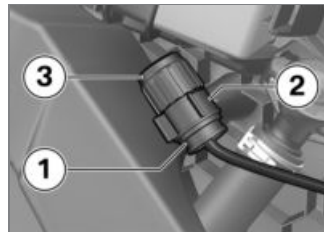
- Removing the side trim panel (➡ 112).



- Unplug diagnostic connector **1** from the bracket **2** and remove the protective cap **3**.
 - » The interface to the diagnosis and information system can be connected to diagnostic connector **1**.

Securing the diagnostic connector

- Disconnect the interface for the diagnosis and information system.



- Screw on cap **3** and plug the diagnostic connector **1** into the bracket **2**.
- Installing side panel (➡ 113).

Accessories

General instructions.....	120
Power sockets	120
Topcase	121

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.



CAUTION

Use of other-make products

Safety risk

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

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 12 V power sockets:

Operating electrical accessories

The battery capacity is not monitored while the 12 V power sockets are being used. The battery can become fully discharged if auxiliary equipment is used for a long time without the high-voltage battery being switched on. There is then no longer any guarantee that the E-Scooter will be able to start.

Cable routing

Note the following with regard to the cable routing from 12 V power sockets to items of electrical equipment:

- Make sure that cables do not impede the rider.

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

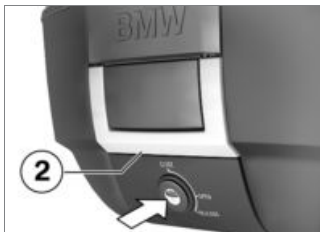
Topcase

Opening topcase

– with topcase^{OA}



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



- 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

– with topcase^{OA}



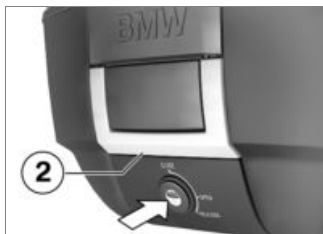
- Make sure that topcase handle **2** is extended.
- Close the topcase lid and push it down until it latches shut. Check that nothing is trapped between the lid and the case.
- Close topcase handle **2**.
- If applicable, turn the key in the topcase lock to the CLOSE position and remove the key from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

Removing the topcase

– with topcase^{OA}



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



- 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

– with topcase^{OA}



- Make sure that topcase handle **2** is extended and that the key in the topcase lock is in the RELEASE position.
- 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.

Maximum payload and maximum permissible speed

Note the maximum permissible payload and the speed limit for riding with topcase fitted, as stated on the label inside the topcase.

Contact your authorised BMW Motorrad dealer if you cannot find your combination of vehicle and topcase on the label.

The values for the combination described here are as follows:

 Maximum speed for riding with a loaded topcase
– with topcase ^{OA}
max 130 km/h<

 Payload of topcase
– with topcase ^{OA}

 Payload of topcase
max 5 kg<

Care

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Care products

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

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



ATTENTION

Use of unsuitable cleaning and care products

Damage to vehicle parts

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

Washing the vehicle

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

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 E-Scooter with cold water immediately after every trip.



WARNING

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

Diminished braking effect, risk of accident

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



ATTENTION

Effect of road salt intensified by warm water

Corrosion

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



ATTENTION

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

Corrosion or short circuit, damage to seals, to the hydraulic brake system, to the electrics and the seat

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

Cleaning easily damaged components

Plastics



ATTENTION

Use of unsuitable cleaning agents

Damage to plastic surfaces

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

Body panels

Clean trim panel components with water and BMW Motorrad solvent cleaner.

Plastic windscreen and headlight lens

Remove dirt and insects with a soft sponge and generous amounts of water.



NOTICE

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

Chrome

Carefully clean chrome sections with a generous amount of water and motorcycle cleaner from the care series BMW Motorrad Care Products. This applies especially where road salt has been in use. For an additional treatment, use BMW Motorrad metal polish.

Rubber

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



ATTENTION

Application of silicone sprays to rubber seals

Damage to the rubber seals

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

Care of paintwork

The long-term effects of materials that are damaging to paint can be prevented by regular vehicle washes, particularly if your vehicle is ridden in areas susceptible to high levels of air pollution or natural contamination, for example tree resin or pollen. Particularly aggressive materials, however, should be removed immediately, otherwise changes to or discolouration of the paint can result. These include, for example, spilled fuel, oil, grease, brake fluid or bird excrement. For this, we recommend BMW Motorrad solvent cleaner followed by BMW Motorrad gloss polish for preservation. Contamination of the paint surface can be seen particularly

clearly after a vehicle wash. These areas should be cleaned immediately using benzine or spirit, applied with a clean cloth or cotton pad. BMW Motorrad recommends that tar spots be removed using BMW tar remover. The paint should then be preserved in these areas.

Vehicle preservation

If water no longer rolls off the paint, the paint must be preserved.

For paint preservation, BMW Motorrad recommends the use of BMW Motorrad gloss polish or agents containing carnauba wax or synthetic wax.

Take E-Scooter out of operation



NOTICE

Do not leave the vehicle out of use for a lengthy period with the high-voltage battery unit in a low state of charge. Before leaving the vehicle out of use for a lengthy period, check the charge status indicator and make sure that the high-voltage battery unit is fully charged.◀



NOTICE

Check the state of charge at regular intervals. Otherwise, excessive discharge can damage the high-voltage battery unit.◀



NOTICE

Do not leave the vehicle parked up for more than 14 days if the electrical range is less

than 10 km. Leave the vehicle practically fully charged if it is to be parked up for up to three months.◀

- Clean the E-Scooter.
- Start charging procedure with charging cable – charge current adjustable (▮▮▮▮ 71).
- Start charging procedure with charging cable – charge current not adjustable (▮▮▮▮ 74).
- Removing 12 V battery (▮▮▮▮ 115).
- Spray the brake-lever, centre-stand and side-stand pivot mounts with a suitable lubricant.
- Coat bright metal and chrome-plated parts with an acid-free grease (e.g. Vaseline).

- Stand the E-Scooter in a dry room in such a way that there is no load on either wheel.

Put E-Scooter into operation

- Remove the protective wax coating.
- Clean the E-Scooter.
- Installing 12 V battery (▮▮▮▶ 116).
- Comply with checklist (▮▮▮▶ 85).

Technical data

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Wheels and tyres	140
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Troubleshooting chart

Charging time is longer than expected during the charging procedure:

Possible cause	Rectification
----------------	---------------

Different values are set for the charge current at the E-Scooter and at the charging cable with adjustable charge current	Set desired charge current both in the Setup menu and at the charging cable with adjustable charge current.
---	---

Riding readiness cannot be switched on:

Possible cause	Rectification
----------------	---------------

Side stand extended	Retract the side stand.
---------------------	-------------------------

Starting without brake application	Operate a brake lever when starting.
------------------------------------	--------------------------------------

12 V battery flat	Charge the 12 V battery (➡ 114).
-------------------	----------------------------------

Screw connections

Front wheel	Value	Valid
Clamping screws (quick-release axle) in telescopic forks		
M6 x 30	Tightening sequence: tighten screws six times in alternate sequence 8 Nm	
Brake caliper to fork leg		
M8 x 32 - 10.9	28 Nm	
Rear wheel	Value	Valid
Rear wheel on output shaft		
M10 x 1.25 x 40	Tightening sequence: tighten in diagonally opposite sequence 60 Nm	

Status displays of the charging cable – charge current adjustable (house symbol / power indicator / passenger car symbol) and their meanings

shows green / shows green / off	E-Scooter not connected
shows green / shows green / shows green	E-Scooter connected and ready for charging
off / off / shows red after 3 seconds	E-Scooter with degassing lead-acid batteries
off / off / shows red	Short-circuit between communication line and protective earth
shows red / off / off	No protective earth or fault in the building's wiring
off / off / flashes red	A fault current has occurred
all LEDs quick-flashing red	Charging cable damaged and not ready for charging
shows green / flashes green / shows green	E-Scooter connected, temperature in excess of 55 °C, E-Scooter charging proceeding at reduced charging current of 6 A
shows red / all LEDs show red / off	Temperature in excess of 65 °C, E-Scooter is no longer being charged
off / flashes red / off	Temperature sensor, battery fault, fault-current test negative, temperature is below -32 °C

Status displays of the charging cable – charge current not adjustable (LED 1 / LED 2) and their meanings

lit blue / off	E-Scooter not connected
flashing blue / off	E-Scooter connected and ready for charging
flashing blue / flashing blue	E-Scooter is charging
off / flashing orange	E-Scooter connected, temperature too high, E-Scooter is charging with reduced charge current
off / lit orange	Temperature critical, E-Scooter will no longer charge
off / flashing red	Fault current occurred
flashing red / lit red	Fault in the in-house installation, no protective earth present
flashing red / flashing red	Critical fault: charging cable damaged and not ready for charging
lit red / lit red	Critical fault: defect temperature sensor, memory error, fault current test negative

Charging time

Charging time of the high-voltage battery unit with standard charging cable	
– without Long Range ^{OE}	approx. 2.7 h, 80 % charge at charge current: 10 A
– with Long Range ^{OE}	approx. 4.2 h, 80 % charge at charge current: 10 A
Charging time for the high-voltage battery using a standard charging cable or Mode3 charging cable	
– without Long Range ^{OE}	approx. 2.2 h, 80% charge for charge current: 15...16 A
– with Long Range ^{OE}	approx. 3.5 h, 80% charge for charge current: 15...16 A

Drive

Location of engine number	Electric motor top, centre
Engine type	JA0P07A
Engine design	Electrical machine, permanently excited synchronous machine with surface magnets, internal rotor
Power rating	11 kW, Steady-state power 35 kW, short-term
– with Long Range ^{OE}	19 kW, Steady-state power 35 kW, short-term
Torque	72 Nm, at engine speed: 4650 min ⁻¹
Maximum engine speed	max 9200 min ⁻¹
– with Long Range ^{OE}	max 10100 min ⁻¹

Transmission

Gearbox type	Planetary gears
--------------	-----------------

Rear-wheel drive

Type of final drive	Propulsion-unit/swinging-arm assembly toothed-belt drive and planetary gears
---------------------	--

Frame

Position of the Vehicle Identification Number	Frame, front right, on steering-head tube
Type plate location	Frame, front right, on steering head

Chassis and suspension

Type of front suspension	Upside-down telescopic fork
Spring travel, front	120 mm, At wheel
Type of rear suspension	Single-arm cast light-alloy swinging arm with cam-adjustable rear wheel axle
Type of rear suspension	Direct-pivot spring strut with adjustable spring preload
Spring travel, rear	115 mm, At wheel

Brakes

Front wheel

Type of front brake	Hydraulically actuated twin-disc brake with 2-piston floating calipers
Brake-pad material, front	Sintered metal
Brake disc thickness, front	min 4.5 mm, Wear limit

Rear wheel

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
Brake disc thickness, rear	min 4.5 mm, Wear limit

Wheels and tyres

Recommended tyre sets	Your authorised BMW Motorrad dealer will be happy to supply an up-to-date list of the approved wheel/tyre combinations, or you can check the information posted on the bmw-motorrad.com web-site.
Speed category, front/rear tyres	M, required at least: 130 km/h
Tyre tread depth, front and rear	min 1.6 mm, Wear limit, for Germany only Country-specific legal requirements, Wear limit, outside Germany
Front wheel	
Front wheel type	Aluminium cast wheel
Front wheel rim size	3.50" x 15"
Tyre designation, front	120/70 R 15
Load index, front tyre	min. 56
Permissible front-wheel imbalance	max 5 g

Rear wheel

Rear-wheel type	Aluminium cast wheel
Rear wheel rim size	4.50" x 15"
Tyre designation, rear	160/60 R15
Load index, rear tyre	min. 67
Permissible rear-wheel imbalance	max 5 g

Tyre pressure

Tyre pressure, front	2.5 bar, Tyre cold
Tyre pressure, rear	2.5 bar, One-up, tyre cold 2.9 bar, two-up and/or with luggage, tyre cold

Electrical system

Total capacity of the high-voltage battery unit	8 kWh, 3 modules, each with 12 battery cells: 94 Ah
Battery	
Battery type	Absorbent Glass Mat (AGM)
Battery rated voltage	12 V
Battery rated capacity	8 Ah
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	LED
Bulbs for flashing turn indicators, front	LED
Bulbs for flashing turn indicators, rear	LED
Bulb for tail light/brake light	LED
Light source for the number plate light	W5W / 12 V / 5 W

Fuses	
Fuse 1	20 A, Relay, electric fan
Fuse 2	4 A, Energy storage management, ILM (integrated charging module)
Fuse 3	4 A, Multifunction switch, left
Fuse 4	7.5 A, Anti-theft alarm, ignition lock, instrument cluster, diagnostic socket, control main relay
Fuse 5	not used
Fuse 6	not used
Fuse 7	not used
Fuse 8	30 A, Basic module
Electrical rating of on-board socket	max 5 A

Dimensions

Length of motorcycle	2190 mm, measured over spray guard
Height of motorcycle	1301 mm, via mirror, at DIN unladen weight
Width of motorcycle	750 mm, across handlebars 947 mm, Across mirrors
Front-seat height	765 mm, Without rider, at DIN unladen weight
– with Long Range ^{OE}	765 mm, Without rider, at DIN unladen weight
Rider's inside-leg arc, heel to heel	1745 mm, without rider, at unladen weight
– with Long Range ^{OE}	1745 mm, without rider, at unladen weight

Weights

Vehicle kerb weight	275 kg, DIN unladen weight, without OE
– with Long Range ^{OE}	275 kg, DIN unladen weight, without OE
Permissible gross weight	445 kg
Maximum payload	170 kg
– with Long Range ^{OE}	170 kg
Permissible wheel load, front	max 190 kg
Permissible wheel load, rear	max 300 kg
Wheel load, front, at unladen weight	137 kg

Wheel load, rear, at unladen weight	138 kg
-------------------------------------	--------

Riding specifications

Top speed	120 km/h, electronically regulated
– with Long Range ^{OE}	>120 km/h, electronically regulated
Maximum speed for reverser	approx. 3 km/h
Range	approx. 100 km, in everyday use (riding mode Road)
– with Long Range ^{OE}	approx. 150 km, in everyday use (riding mode Road)

Service

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Recycling

How to dispose of an end-of-life (EOL) E-Scooter?

Consult your nearest authorised BMW Motorrad dealer who is also a "certified disposal specialist for EOL motorcycles".

BMW Motorrad Service

BMW Motorrad has an extensive network of dealerships in place to look after you and your E-Scooter throughout Europe. Authorised BMW Motorrad dealerships have the technical information and the technical know-how to carry out all maintenance and repair work on your BMW E-Scooter in a reliable manner.

You can locate your nearest authorised BMW Motorrad dealership by visiting our website:

bmw-motorrad.com



WARNING

Maintenance and repair work not in compliance with correct procedure

Risk of accident due to subsequent damage

- BMW Motorrad recommends you to have all the associated work on your E-Scooter carried out by a specialist workshop, preferably an authorised BMW Motorrad dealer. ◀

Have all repair work that is carried out confirmed in the "Service" chapter in this manual. For generous treatment of claims submitted after the warranty period has expired, evidence of regular repairs is essential.

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

BMW Motorrad Service history

Entries

Maintenance work that has been carried out is entered in the proof of maintenance. The entries are like a Service Booklet and provide proof of regular maintenance.

If an entry is made in the electronic service booklet of the vehicle, service-relevant data is saved in the central IT systems of BMW AG, Munich.

If there is a change in vehicle owner, the data saved in the electronic service booklet can also be viewed by the new vehicle owner. A BMW Motorrad Retailer or a specialist workshop can also view data that is stored in the electronic service booklet.

Objection

The vehicle owner can object to entries being made by the BMW Motorrad Retailer or a specialist workshop in the electronic service booklet along with the corresponding storage of data in the vehicle and transfer of data to the vehicle manufacturer for the period of time that they are the vehicle owner. In this instance, no entry is made in the electronic service booklet of the vehicle.

BMW Motorrad Mobility services

As owner of a new BMW vehicle, 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

	Running-in check
500...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.

To find out more about service go to:

bmw-motorrad.com/service

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

[illegible]

Maintenance schedule

- 1** BMW Running-in check
- 2** BMW Service standard scope
- 3** Check the threaded fasteners of swinging-arm cover
- 4** Replace the belt
- 5** Change brake fluid, entire system^a for the first time after one year, then every two years

Maintenance confirmations

BMW Service standard scope

The repair tasks in the BMW Service standard scope are listed below. The actual scope of maintenance work applicable for your vehicle may vary.

- Checking battery charge state
- Performing vehicle test with BMW Motorrad diagnostic system
- Visually inspecting brake pipes, brake hoses and connections
- Checking front/rear brake-fluid level
- Checking front brake pads and brake discs for wear
- Checking rear brake pads and brake disc for wear
- Lubricating side stand and checking Bowden cable for parking brake
- Lubricating bearer of Bowden cable for parking brake and checking basic setting and braking effect of parking brake
- Checking steering-head bearing
- Check coolant level
- Checking tyre pressures and tread depth
- Check the lights and signalling equipment
- Function check, start enabling
- Final inspection and check of roadworthiness
- Setting the service date and service for remaining distance with BMW Motorrad diagnosis system
- Confirm BMW service in on-board literature

BMW pre-delivery check

carried out

at _____

Stamp, signature

BMW Running-in Check

carried out

at _____

at km _____

Next service

at the latest

at _____

or, when reached earlier

at km _____

Stamp, signature

BMW Service

carried out

at _____

at km _____

Next service

at the latest

at _____

or, when reached earlier

at km _____

Stamp, signature

Work performed

BMW Service

Checking threaded fasteners of
swinging arm cover (for maintenance)

Replacing belt

Change brake fluid in entire system

Yes

No

☐☐☐☐☐☐☐☐

Notes

BMW Service

carried out

at _____

at km _____

Next service

at the latest

at _____

or, when reached earlier

at km _____

Stamp, signature

Work performed

BMW Service

Yes

No

☐☐Checking threaded fasteners of
swinging arm cover (for maintenance)☐☐

Replacing belt

☐☐

Change brake fluid in entire system

☐☐

Notes

BMW Service

carried out

at _____

at km _____

Next service

at the latest

at _____

or, when reached earlier

at km _____

Stamp, signature

Work performed

BMW Service

Checking threaded fasteners of
swinging arm cover (for maintenance)

Replacing belt

Change brake fluid in entire system

Yes

No

☐☐☐☐☐☐☐☐

Notes

BMW Service

carried out

at _____

at km _____

Next service

at the latest

at _____

or, when reached earlier

at km _____

Stamp, signature

Work performed

BMW Service

Yes

No

☐☐Checking threaded fasteners of
swinging arm cover (for maintenance)☐☐

Replacing belt

☐☐

Change brake fluid in entire system

☐☐

Notes

BMW Service

carried out

at _____

at km _____

Next service

at the latest

at _____

or, when reached earlier

at km _____

Stamp, signature

Work performed

BMW Service

Checking threaded fasteners of
swinging arm cover (for maintenance)

Replacing belt

Change brake fluid in entire system

Yes

No

☐☐☐☐☐☐☐☐

Notes

BMW Service

carried out

at _____

at km _____

Next service

at the latest

at _____

or, when reached earlier

at km _____

Stamp, signature

Work performed

BMW Service

Yes

No

☐☐Checking threaded fasteners of
swinging arm cover (for maintenance)☐☐

Replacing belt

☐☐

Change brake fluid in entire system

☐☐

Notes

BMW Service

carried out

at _____

at km _____

Next service

at the latest

at _____

or, when reached earlier

at km _____

Stamp, signature

Work performed

BMW Service

Yes

No

☐☐Checking threaded fasteners of
swinging arm cover (for maintenance)☐☐

Replacing belt

☐☐

Change brake fluid in entire system

☐☐

Notes

BMW Service

carried out

at _____

at km _____

Next service

at the latest

at _____

or, when reached earlier

at km _____

Stamp, signature

Work performed

BMW Service

Yes

No

☐☐Checking threaded fasteners of
swinging arm cover (for maintenance)☐☐

Replacing belt

☐☐

Change brake fluid in entire system

☐☐

Notes

BMW Service

carried out

at _____

at km _____

Next service

at the latest

at _____

or, when reached earlier

at km _____

Stamp, signature

Work performed

BMW Service

Yes

No

☐☐Checking threaded fasteners of
swinging arm cover (for maintenance)☐☐

Replacing belt

☐☐

Change brake fluid in entire system

☐☐

Notes

BMW Service

carried out

at _____

at km _____

Next service

at the latest

at _____

or, when reached earlier

at km _____

Stamp, signature

Work performed

BMW Service

Yes

No

☐☐Checking threaded fasteners of
swinging arm cover (for maintenance)☐☐

Replacing belt

☐☐

Change brake fluid in entire system

☐☐

Notes

BMW Service

carried out

at _____

at km _____

Next service

at the latest

at _____

or, when reached earlier

at km _____

Stamp, signature

Work performed

BMW Service

Yes

No

☐☐Checking threaded fasteners of
swinging arm cover (for maintenance)☐☐

Replacing belt

☐☐

Change brake fluid in entire system

☐☐

Notes

BMW Service

carried out

at _____

at km _____

Next service

at the latest

at _____

or, when reached earlier

at km _____

Stamp, signature

Work performed

BMW Service

Yes

No

☐☐Checking threaded fasteners of
swinging arm cover (for maintenance)☐☐

Replacing belt

☐☐

Change brake fluid in entire system

☐☐

Notes

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

[illegible]

Work performed	at km	Date

Certificate

BMW C evolution Battery Certificate for the high-voltage cell modules services and conditions 170

BMW C evolution Battery Certificate for the high-voltage cell modules services and conditions

In relation to the high-voltage cell modules, supplementary to claims in respect of material defects as set out in the terms and conditions of sale and supply for new BMW C evolution vehicles, the selling, authorised BMW Motorrad dealer issues to the purchaser of a BMW C evolution new vehicle the following commitments:

1. The BMW C evolution Battery Certificate for the high-voltage cell modules of the BMW C evolution new vehicle applies for the first 50000 km of the BMW C evolution new vehicle and ends, regardless of the distance covered, no later

than five years after initial delivery or the first registration of the BMW C evolution new vehicle, whichever comes first ("term of certificate").

2. Within the term of certificate the purchaser can stipulate rectification of a defect in the high-voltage cell modules free of charge.

3. If the BMW C evolution vehicle has to be recovered within the term of certificate on account of a defect in the high-voltage cell modules, the purchaser will receive reimbursement of the costs incurred for recovery and transport to the nearest BMW C evolution service workshop.

4. For technical reasons, the capacity of a lithium-ion high-voltage battery decreases in the course of its service life (natural wear). If charge-capacity measurement by an authorised BMW Motorrad dealer within the term of certificate establishes that net battery capacity is less than 70 % of the original value on delivery of the BMW C evolution new vehicle, this percentage capacity below 70 % constitutes an excessive loss of capacity. This excessive loss of capacity will be eliminated free of charge to the purchaser.

5. The purchaser can request the commitments set out in this BMW C evolution Battery Certificate from the selling authorised BMW Motorrad dealer or any authorised BMW Motorrad dealer in the C evolution sales markets*.

6. The commitments from the BMW C evolution Battery Certificate require the inspections to have been undertaken with the regularity specified by the manufacturer and for checks and, if applicable, improvements within the framework of these inspections to have been carried out on the high-voltage cell modules. The commitments do not apply if a defect of the high-voltage cell modules or an excessive loss of capacity is due to accident damage or has occurred because

- the BMW C evolution vehicle was operated under conditions for which it was not homologated (e.g. in a country with conditions of homologation different from that of the place of initial delivery), or
- the BMW C evolution was handled incorrectly or overstrained, for example in motorsport competition, or

- parts were installed in the BMW C evolution vehicle the use of which the manufacturer had not approved, or the BMW C evolution vehicle of parts thereof (e.g. software) were modified in a way not authorised by the manufacturer, or
- the instructions for handling, maintenance and care of the BMW C evolution vehicle (particularly as set out in the Rider's Manual) were not followed, or
- the high-voltage battery was opened or removed from the BMW C evolution vehicle.

7. This BMW C evolution Battery Certificate is a supplementary part of the terms and conditions of sale and supply for new BMW C evolution vehicles. Commitments and claims in accordance with the terms and condi-

tions of sale and supply for new BMW C evolution vehicles are unaffected by the commitments set out in this BMW C evolution Battery Certificate.

8. A change of owner of the BMW C evolution vehicle does not affect the commitments set out in the BMW C evolution Battery Certificate.

* Sales markets are: Andorra, Austria, Belgium, China, Germany, France, Great Britain, Ireland, Italy, Japan, Korea, Liechtenstein, Luxembourg, Monaco, Netherlands, Portugal, Russia, San Marino, Spain, Switzerland, USA.

1

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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.

Original rider's manual, printed in Germany.

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Werke Aktiengesellschaft
80788 Munich, Germany
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Important data for the short vehicle check (see "Technical Data" section):

Charging time

Charging time of the high-voltage battery unit with standard charging cable

– without Long Range ^{OE}	approx. 2.7 h, 80% charge when charge current: 10 A
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– with Long Range ^{OE}	approx. 4.2 h, 80% charge when charge current: 10 A
---------------------------------	---

Charging time for the high-voltage battery using a standard charging cable or Mode3 charging cable

– without Long Range ^{OE}	approx. 2.2 h, 80% charge for charge current: 15...16 A
------------------------------------	---

– with Long Range ^{OE}	approx. 3.5 h, 80% charge for charge current: 15...16 A
---------------------------------	---

Tyre pressure

Tyre pressure, front	2.5 bar, Tyre cold
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Tyre pressure, rear	2.5 bar, One-up, tyre cold 2.9 bar, two-up and/or with luggage, tyre cold
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You can find further information on all aspects of your vehicle at:
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