BMW Motorrad

Rider's Manual (US Model)

C evolution

Motorcycle/Retailer Data

Motorcycle Data

Model

Vehicle identification number

Color number

Initial registration

License plate

Retailer Data

Contact in Service

Ms./Mr.

Phone number

Retailer's address/phone number (company stamp)

Welcome to BMW

We are pleased that you have chosen a BMW Motorrad vehicle and welcome you to the family of BMW riders. Familiarize yourself with your new vehicle so that you can ride safely and confidently in all traffic situations.

About this Rider's Manual

Read this Rider's Manual before you start your new BMW. It contains important information about operating the vehicle that will enable you to make full use of the technical advantages of your BMW.

It also provides information about vehicle maintenance and care, operational and road safety, and tips on how best to preserve the value of your vehicle.

Feedback and comments

Should you have any questions about your E-Scooter, your BMW Motorrad retailer is always happy to provide you with advice and support.

We wish you many miles of pleasure and satisfaction with your new BMW, along with a safe and enjoyable ride,

BMW Motorrad.

01 40 8 404 986

Table of Contents

General instructions

About this Rider's Manual

Read this Rider's Manual before you start your new E-Scooter. It contains important information about operating the vehicle that will enable you to make full use of the technical advantages of your E-Scooter.

It also provides information about vehicle maintenance and care, operational and road safety, and tips on how best to preserve the value of your vehicle.

Overview

Chapter 2 of this Rider's Manual will provide you with an initial overview of your E-Scooter. All maintenance and repair work carried out on your motorcycle will be documented in Chapter 13. Documentation confirming performance of scheduled maintenance is a precondition for generous handling of out-of-warranty claims and goodwill warranty treatment.

Sale of the E-Scooter

When it comes time to sell your E-Scooter, remember to hand over this Rider's Manual; it is an important part of the motorcycle. It is an important part of the motorcycle.

The high-voltage system in your E-Scooter

Your E-Scooter is an electric vehicle. It has a high-voltage system that is comprised, among other elements, of an electrical machine and a high-voltage battery.

Warning sticker on vehicle components

The warning sticker on vehicle components informs you that the improper use of high-voltage technology or high-voltage components could result in serious injury as a result of electric shock.

Abbreviations and symbols

CAUTION Hazard with low risk. Failure to avoid this hazard can result in minor or moderate injury.

WARNING Hazard with moderate risk. Failure to avoid this hazard can result in death or serious injury.

DANGER Hazard with high risk. Failure to avoid this hazard results in death or serious injury.

ATTENTION Special instructions and precautionary measures. Non-compliance can cause damage to the vehicle or accessories and warranty claims may be denied as a result.

NOTICE Special information on operating and inspecting your motorcycle as well as maintenance and adjustment procedures.

◄ Indicates the end of an item of information.

• Instruction.

» Result of an activity.

Reference to a page with more detailed information.

◁ Indicates the end of accessory or equipment-dependent information.

Tightening torque.

Technical data.

OE Optional extra.
BMW Motorrad optional extras are already completely installed during motorcycle production.

OA Optional accessory.
BMW Motorrad optional accessories can be purchased and installed at your authorized BMW Motorrad retailer.

EWS Electronic immobilizer.

DWA Anti-theft alarm.

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 Recuperative brake system (brake system with energy recovery).

TCA Torque Control Assist.

Equipment

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

Technical Data

All dimensions, weights and performance data contained this Rider's Manual refer to the German DIN standards and comply with their tolerance specifications. Versions for individual countries may differ.

Notice concerning current status

The outstanding levels of safety and quality furnished by E-Scooters are the result of ongoing advanced development focusing on continuous improvement in design and engineering as well as equipment and accessories. For this reason, some aspects of your vehicle may vary from the descriptions in this Rider's Manual. In addition, BMW Motorrad cannot guarantee the total absence of errors. We hope you will appreciate that no claims can be recognized based on the data, illustrations or descriptions in this manual.

Overviews


1
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4

General view, left side

1 Brake fluid reservoir for the rear wheel brake (➠ 89)
2 Helmet compartment (➠ 49) (➠ 50)
3 Spring preload (➠ 52)
4 Charging socket (➠ 61)


5
1
2
3
4
6

General view, right side

1 Brake fluid reservoir for the front wheel brake (➡ 88)

2 Vehicle Identification Number (steering-head bearing top right)

3 Type plate (on the inner right-hand side of the front panel carrier)

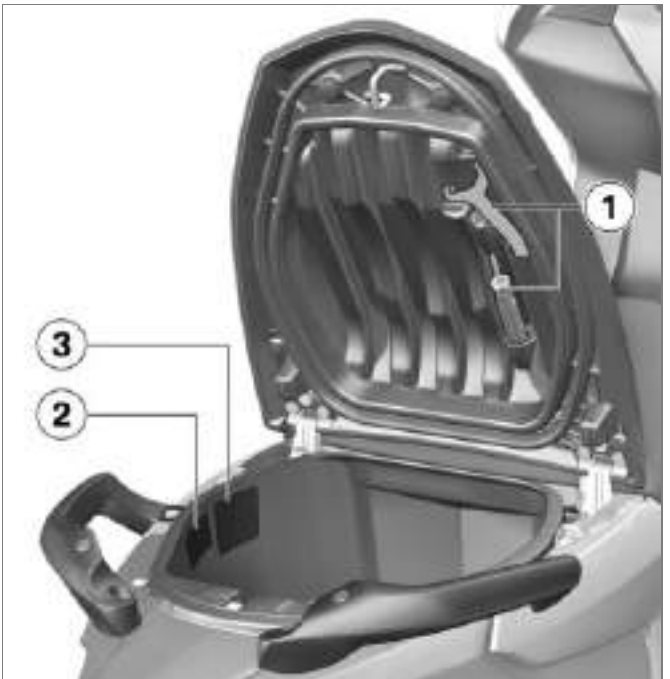
4 12V battery (rear fairing side panel) (➡ 96)
Fuses (rear fairing side panel) (➡ 98)

5 12V socket (right-hand side of storage compartment) (➡ 102)

6 High-voltage safety plug (rear fairing side panel) (➡ 30)

Underneath seat

1 Tool kit (84)
2 Load capacity table
3 Tire pressure table

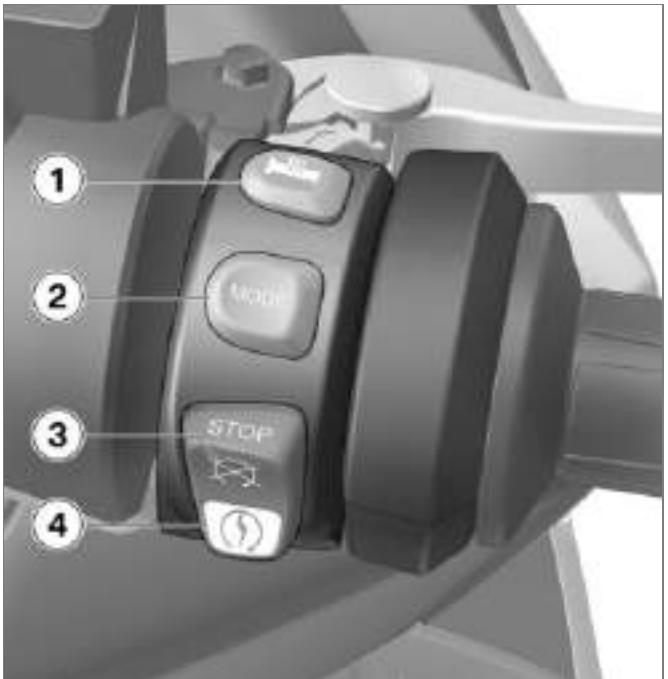


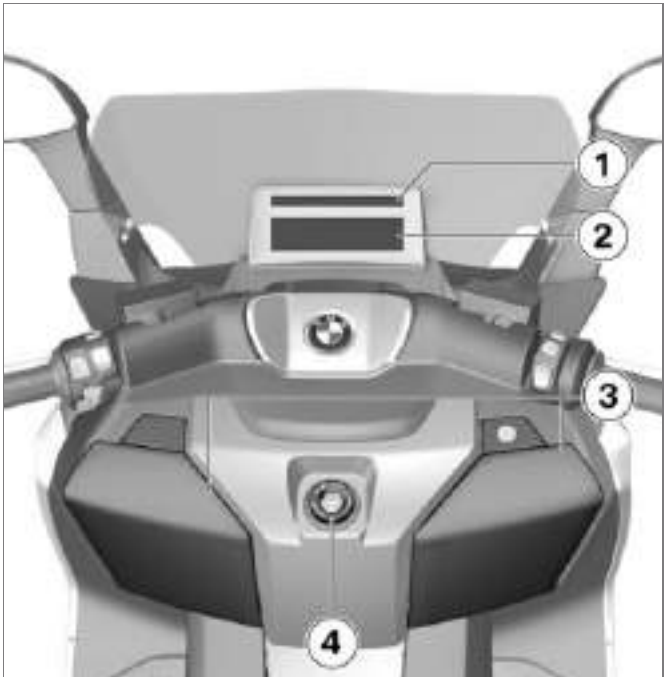
Multifunction switch, left

1 High-beam headlight and headlight flasher (➠ 41)
2 Hazard warning lights system (➠ 41)
3 Reverser (➠ 40)
4 Turn indicators (➠ 42)
5 Horn
6 INFO, onboard computer (➠ 42)
7 TRIP, odometer (➠ 42)

Multifunction switch, right

1 – with heated handlebar grips[OE]
Heated handle bar grip (➡ 49)
2 Riding mode (➡ 64)
3 Emergency on/off switch (kill switch) (➡ 39)
4 Starter button (➡ 72)





Dashboard

1 Indicator and warning lights (➠ 20)

2 Multifunction display (➠ 21)

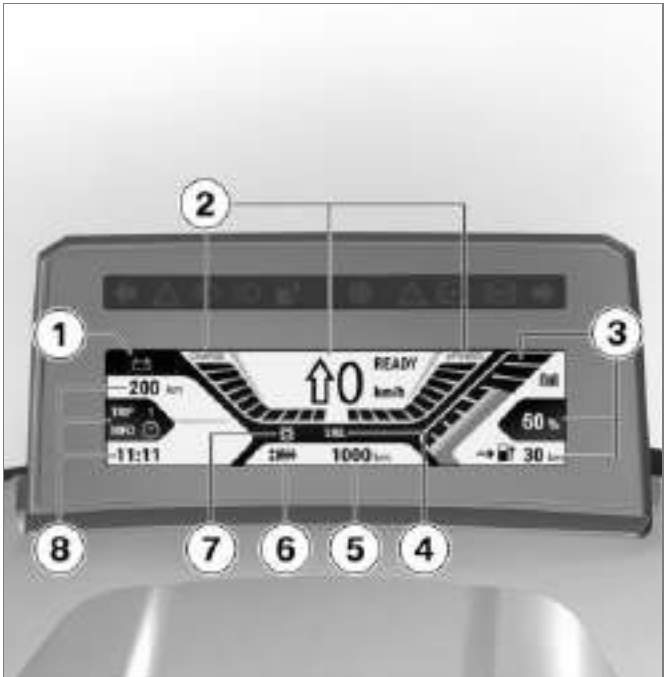
3 Storage compartments (➠ 50)
Charging socket (left) (➠ 102)
12V power outlet (storage compartment right) (➠ 102)

4 Steering and ignition lock (➠ 38)

Displays

Indicator and warning lights

1 Turn indicator, left
2 General warning light (➠ 25)
3 High-beam headlight (➠ 41)
4 Fuel reserve (flashes yellow when charging and flashes green when high-voltage battery is fully charged)
5 DWA (➠ 44)
Photo sensor (➠ 46)
6 Isolation fault (flashes yellow) (➠ 30)
High-voltage safety plug not connected (flashes red) (➠ 30)
7 RBS (➠ 30)
TCA (➠ 31)
8 ABS (➠ 31)
9 Turn indicator, right (➠ 42)



Multifunction display

1 Warning lights (➠ 25)
2 Drive display (➠ 64)
3 Charge status indicator (➠ 65)
4 Riding mode (➠ 64)
5 Total distance
6 – with heated handlebar grips[OE]
Heated handle bar grip (➠ 49)
7 Outside temperature warning
8 Upper area: distance covered information and Setup menu (➠ 46)

Setup menu

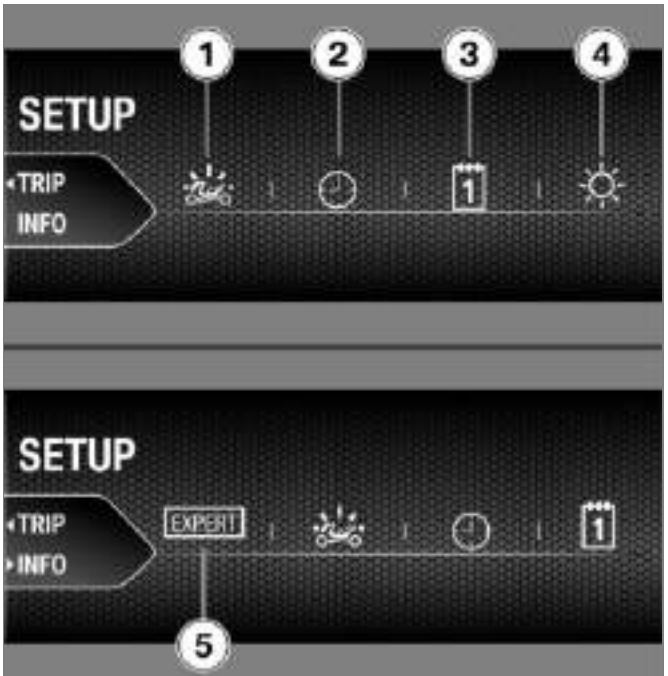
1 – with anti-theft alarm system (DWA)[OE]
Using the anti-theft alarm system (➠ 44).

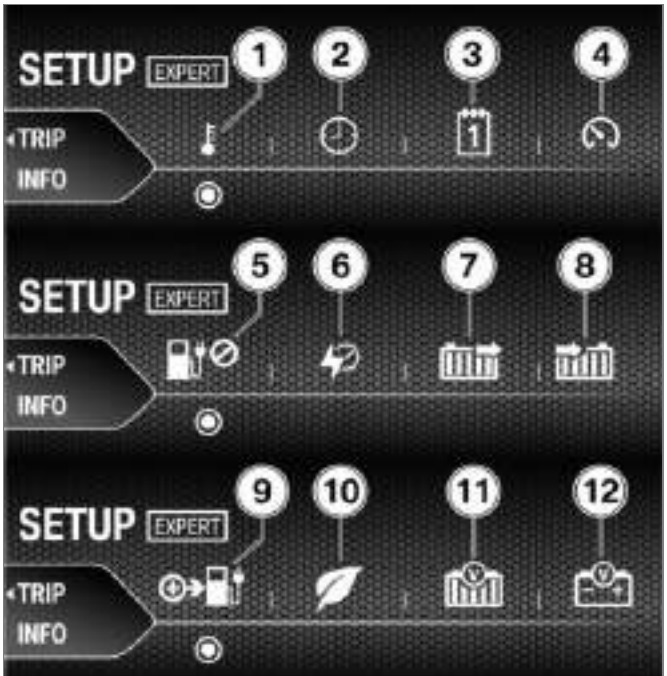
2 Setting the time display (➠ 45).

3 Set date (➠ 45).

4 Adjusting display brightness (➠ 46).

5 Call up Expert menu (➠ 46).





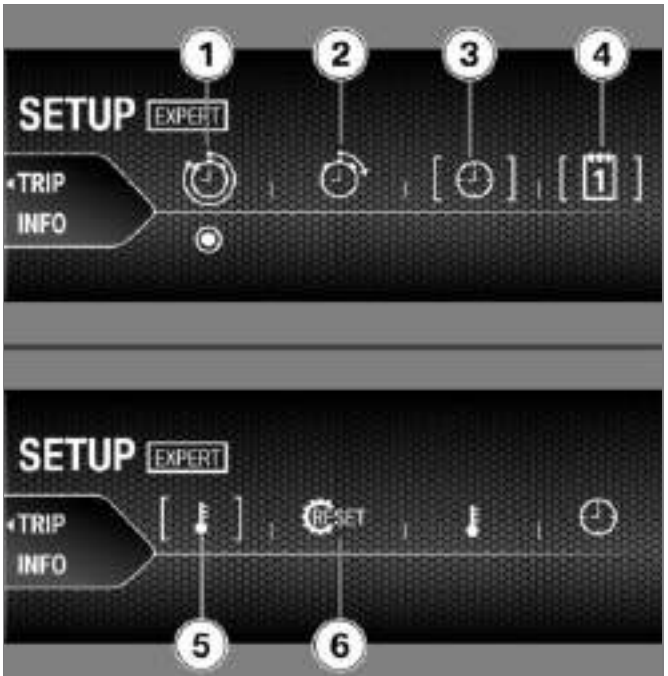
Expert menu (part 1)

Individual functions can be switched on/off and formats/units adjusted in the Expert menu.

1 Ambient temperature
2 Time display
3 Date
4 Average speed
5 Average fuel consumption
6 Current fuel consumption
7 Overall fuel consumption
8 Energy recovery
9 Bonus range
10 Environment points
11 High-voltage power
12 Vehicle voltage

Expert menu (part 2)

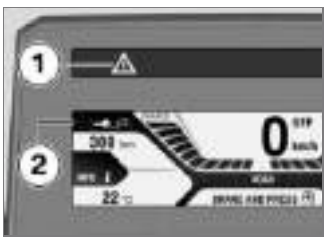
1 Operating period
2 Driving time of at least 7 km/h
3 Time format
4 Date format
5 Unit for temperature
6 Reset
(Resetting to factory setting)



Warning lights

Display

Warnings are displayed with appropriate warning lights.



Warnings for which there are no separate warning lights are displayed in the form of the general warning light **1** in conjunction with up to three warning symbols in position **2** that appear from right to left. These symbols are sorted by order of priority. The highest priority is on the right. The universal warning light lights up in either yellow or red depending on the urgency of the warning.

If there are multiple warnings, the three warnings with the highest priority are displayed.

You will find an overview of the potential warnings on the following pages.

Overview of warning indicators

Indicator and warning lights	Display text	Meaning
 lights up yellow	 appears on the display	Electronic immobilizer is active (➠ 29)
 lights up red	 appears on the display	Serious fault in high-voltage battery (➠ 29)
 lights up yellow	 appears on the display	Fault in high-voltage battery (➠ 29)
 lights up red	 appears on the display	Charging cable connected when operating readiness turned on (➠ 29)
 lights up yellow	 appears on the display	Electric drive in emergency operation (➠ 30)
 lights up red	 appears on the display	Fault in electric drive (➠ 30)
 lights up yellow	 appears on the display	Isolation fault in the high-voltage area (➠ 30)
 lights up red	 appears on the display	High-voltage safety plug not connected (➠ 30)

Indicator and warning lights	Display text	Meaning
 appears on the display		RBS/TCA fault (➠ 30)
 flashes		TCA self-diagnosis not completed (➠ 31)
 lights up yellow	 appears on the display	TCA fault (➠ 31)
 flashes		ABS self-diagnosis not completed (➠ 31)
 lights up		ABS malfunction (➠ 31)
 lights up yellow	 appears on the display	Front light failure (➠ 32)
 lights up yellow	 appears on the display	Tail light failure (➠ 32)
 lights up yellow	 appears on the display	Frontal and tail light failure (➠ 32)

Indicator and warning lights	Display text	Meaning
	 appears on the display	Ambient temperature (➠ 33)
	 appears on the display	Anti-theft alarm battery low charge (➠ 33)
 lights up yellow	 appears on the display	Anti-theft alarm system battery discharged (➠ 33)
 lights up red	 appears on the display	Insufficient battery charge current (➠ 33)
	 appears on the display	Vehicle voltage low (➠ 34)
 lights up yellow	 appears on the display	Vehicle voltage critical (➠ 34)
 briefly lights up yellow	 appears on the display	Service overdue (➠ 34)

Electronic immobilizer is active

 lights up yellow.

 appears on the display.

Possible cause:

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

- Remove other motorcycle keys located on the vehicle key.
- Use the reserve key.
- Have the defective key replaced, preferably by an authorized BMW Motorrad retailer.

Serious fault in high-voltage battery

 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 is switched off. Charging is no longer possible. The E-Scooter's high-voltage battery may be faulty.

- Do not continue riding.
- Have the fault corrected by a BMW Motorrad partner as quickly as possible.

Fault in high-voltage battery

 lights up yellow.

 appears on the display.

Possible cause:

There is a fault in the high-voltage battery.

- Continued driving is possible, however the accustomed battery performance may not be available.
- Have the fault corrected by a BMW Motorrad partner as quickly as possible.

Charging cable connected when operating readiness turned on

 lights up red.

 appears on the display.

Possible cause:

The charging cable was connected when operating readiness was turned on. Drive release not possible.

- To start or continue the charging procedure, the operating

readiness must be switched off.
- Operating readiness switched off (39).

Electric drive in emergency operation

 lights up yellow.

 appears on the display.

WARNING

Unusual handling when electric drive is in emergency operating mode

Accident hazard

- Adjust driving: avoid rapid acceleration and passing maneuvers.◀

Have the fault corrected by a BMW Motrorrad partner as quickly as possible.

Fault in electric drive

 lights up red.

 appears on the display.

Do not continue riding. Have the fault corrected by a BMW Motorrad partner as quickly as possible.

Isolation fault in the high-voltage area

 lights up yellow.

 appears on the display.

Possible cause:

An isolation fault has been detected. A high-voltage cable has been damaged.

- Have the fault corrected by a BMW Motorrad partner as quickly as possible.

High-voltage safety plug not connected

 lights up red.

 appears on the display.

Possible cause:

The high-voltage safety plug has been disconnected and the high-voltage system has been deactivated.

- Note the following information:

NOTICE

The high-voltage safety plug may only be disconnected by a BMW Motorrad partner.◀

RBS/TCA fault

 appears on the display.

Possible cause:

The engine control has detected a fault. Energy recovery is only available to a limited extent as a result of the deceleration of the vehicle.

- Have the fault corrected by a BMW Motorrad partner as quickly as possible.

TCA self-diagnosis not completed

 flashes.

Possible cause:

The self-diagnosis routine was not completed; the TCA function is not available. Before the TCA self-diagnosis can be completed, the E-Scooter must reach a speed of at least 3 mph (5 km/h).

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

TCA fault

 lights up yellow.

 appears on the display.

Possible cause:

TCA is not available. The rear wheel can spin during acceleration, making energy recovery during vehicle deceleration unavailable.

- Have the fault corrected by a BMW Motorrad partner as quickly as possible.

ABS self-diagnosis not completed

 flashes.

Possible cause:

The self-diagnosis routine was not completed; the ABS function is not available. The E-Scooter must reach a speed of at least 3 mph (5 km/h) before ABS self-diagnosis can be completed.

- Ride off slowly. Please note that the ABS function is only available after the self-diagnosis has completed.

ABS malfunction

 lights up.

Possible cause:

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

- It is possible to continue riding if you make allowance for the failed ABS function. You should also take account of the additional information on situations that can lead to an ABS fault (80).
- Have the fault corrected by a BMW Motorrad partner as quickly as possible.

Front light failure

 lights up yellow.

 appears on the display.

WARNING

Overlooking the vehicle in traffic due to a defective light source on the vehicle

Safety risk

- Replace defective bulbs as soon as possible; it is best always to carry a complete set of spare bulbs on the motorcycle.◀

Possible cause:

Low beams or high beams faulty.

- Replacing low and high-beam light sources in headlight (92).

Possible cause:

Parking light defective.

- Have the light source for the parking light replaced by a BMW Motorrad partner.

Possible cause:

LED turn indicator faulty.

- Replace LED turn indicator (94).

Tail light failure

 lights up yellow.

 appears on the display.

Possible cause:

LED tail light is faulty.

- Replacing LED tail light (94).

Possible cause:

LED turn indicator faulty.

- Replace LED turn indicator (94).

Frontal and tail light failure

 lights up yellow.

 appears on the display.

Possible cause:

The tail light and the light source for the headlight.

- Replacing low and high-beam light sources in headlight (92).
- Have the light source for the parking light replaced by a BMW Motorrad partner.
- Replacing LED tail light (94).

Possible cause:

LED turn indicator faulty.

- Replace LED turn indicator (94).

Ambient temperature

 appears on the display.

Possible cause:

The ambient temperature measured at the vehicle is lower than 37 °F (3 °C).

WARNING

Risk of black ice, even above 37 °F (3 °C)

Accident hazard

- At a low outside temperature, icy conditions must expected on bridges and in shady road areas.◀
- Think well ahead when driving.

Anti-theft alarm battery low charge

– with anti-theft alarm system (DWA)[OE]

 appears on the display.

NOTICE

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

Possible cause:

The anti-theft alarm battery no longer has its full capacity. The anti-theft alarm system function is only guaranteed for a limited period for 12V batteries that have been disconnected.

- Contact a BMW Motorrad partner.

Anti-theft alarm system battery discharged

– with anti-theft alarm system (DWA)[OE]

 lights up yellow.

 appears on the display.

NOTICE

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

Possible cause:

The anti-theft alarm system battery is completely discharged. The anti-theft alarm system function is no longer guaranteed if the 12V battery has been disconnected.

- Contact a BMW Motorrad partner.

Insufficient battery charge current

 lights up red.

 appears on the display.

WARNING

Failure of various vehicle systems, such as lighting, electrical machine or ABS, due to a discharged battery.
Accident hazard
• Do not continue riding.◀

12V battery is not being charged.
Possible cause:
There is a fault in the DC/DC converter.
• Contact a BMW Motorrad partner.

Vehicle voltage low

appears on the display.

Possible cause:
Too many loads are switched on.
• Charge 12V battery (➠ 96).
If the 12V battery is no longer fully charging:
• Contact a BMW Motorrad partner.

Vehicle voltage critical

lights up yellow.

appears on the display.

12V battery no longer has sufficient voltage to supply all components.
Possible cause:
Too many loads are switched on.
• Charge 12V battery (➠ 96).
If the 12V battery is no longer fully charging:
• Contact a BMW Motorrad partner.

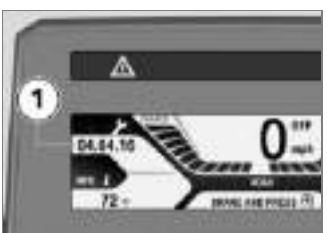
Service overdue

briefly lights up yellow after the Pre-Ride-Check.

appears on the display.

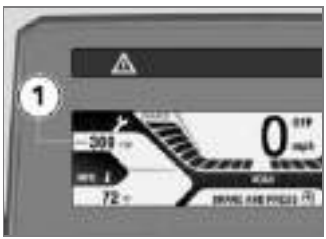
Possible cause:
The required service has not yet been performed.
• Have the service carried out by a BMW Motorrad partner as quickly as possible.

Service display



If the time remaining until the next service is due to expire within one month, the service date **1** appears briefly following the Pre-Ride-Check. In this

example the display means "April 4, 2016".



If the motorcycle covers high annual mileages then shorter service intervals may be required. If the countdown distance to the early service is less than 700 miles, the remaining distance **1** is counted down in 100-mile increments and displayed briefly following the Pre-Ride-Check.

When a service date elapses without service, the universal warning light lights up in yellow, appearing together with the date and mileage display.

In addition to the universal warning light, the service warning symbol will also light up. The service symbol is displayed continuously in accordance with the priorities.

NOTICE

If the service display appears more than a month before the service date, the stored date must be adjusted in the instrument cluster. This situation can occur if the 12V battery has been disconnected.◀

Ambient temperature

If the ambient temperature drops below 37 °F (3 °C), the temperature display in the multifunction display responds by flashing a warning indicating possible ice formation. The display automatically switches from any other mode to the temperature reading when the temperature drops below this threshold for the first time.

Operation

Steering and ignition lock

Vehicle keys

You are provided with 2 vehicle keys.

– with topcase[OA]
You can use the same key for the Topcase if you wish. Contact a BMW Motorrad partner to have this request implemented.

Locking handlebars

Requirement

Turn handlebars to left.

- Turn key to position **1** while moving handlebars slightly.
» Operating readiness is switched on.
» Handlebars are locked.
» Key can now be removed.

Switch on operating readiness

- Turn vehicle key to position **1**.
» Parking light and all function circuits are switched on.
» Pre-Ride-Check in progress. (➡ 69)
» ABS self-diagnosis is performed. (➡ 70)
» TCA self-diagnosis is performed. (➡ 71)
» Vehicle is operational.

Operating readiness switched off

- Turn vehicle key to position **1**.

» Light is switched off, side light remains illuminated briefly.
» Handlebars are not locked.
» The vehicle key can now be removed.

Emergency on/off switch (kill switch)

1 Emergency on/off switch (kill switch)

The emergency off switch **1** can be used to quickly switch off the electrical machine.

A Electrical machine switched off

B E-Scooter ready for operation

Reverser

Using the reverser

WARNING

Reduced awareness of the E-Scooter in electric mode.
Accident hazard
- With driving in electric mode, pedestrians and others on the road may not as aware of the E-Scooter because of its lack of engine noise.
- Drive with particular care.◀
- Switching on drive readiness (72).

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

- The release is displayed in the multifunction display in position **1** with an arrow pointing down and in position **2** with an R symbol.
- Twist e-gas electronic throttle twistgrip and park in reverse.

Walking speed
The maximum speed of the E-Scooter in reverse is walking speed.
2 mph (3 km/h)

Lights

Low-beam headlight and parking lights

The parking light automatically switches on when the E-Scooter is operational. It remains on for a brief period.

NOTICE

The parking light loads the 12V battery. Switch the operating readiness on briefly.◀

The low beams automatically switch on when the E-Scooter is operational.

During the day, the daytime running lights can be switched on as an alternative to the low-beam headlight.

High-beam headlight and headlight flasher

- Switch on operating readiness (38).

- Press switch **1** toward front to switch on high-beam headlight.
- Pull switch **1** toward rear to actuate headlight flasher.

Parking lights

- Operating readiness switched off (39).

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

Hazard warning lights system

Operate hazard warning flashers

- Switch on operating readiness (38).

NOTICE

The hazard warning lights system loads the 12V battery. Only switch the hazard warning lights system on briefly.◀

NOTICE

If a turn signal button is pressed while the operating readiness is switched on, the turn signal function will replace the warning light function the entire time the turn signal button is pressed. Once the turn signal button is no longer being pressed, the warning light function will resume.◀

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

» Operating readiness can be switched off.

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

- Press button **1** to left to switch on left-side turn indicators.
- Press button **1** to right to switch on right-side turn indicators.
- Put button **1** into center position to turn off turn indicators.

Turn indicators

Operating turn indicators

- Switch on operating readiness (38).

Turn indicator cancellation

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

Display

Selecting display readings

- Switch on operating readiness (38).

- Briefly press button **1** to select the display in field **2**.

The following data can be displayed:

– Trip distance 1 (Trip 1)
– Trip distance 2 (Trip 2)
– Auto trip distance (Trip A) is automatically reset if the operating readiness is switched off for at least 6 hours.
– Setup menu (Setup)

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

– Average fuel consumption
– Range gain
– Overall fuel consumption
– Overall energy recovery
– Driving time of at least 7 km/h
– Operating period
– Average speed
– Environment points

Resetting the trip odometer

- Switch on operating readiness (38).
- Select desired odometer.

- Briefly press button **1** to select the desired trip odometer.
- Press and hold button **1** until the trip odometer in field **2** has been reset.

Resetting average data

- Switch on operating readiness (38).

- Briefly press button **1** repeatedly until desired value is displayed.
- Press and hold the **1** button until the value displayed in field **2** has been reset.

Setup menu

Entering the Setup menu

Requirement

The Setup menu is only available when the vehicle is not moving.

- Switch on operating readiness (38).

- To enter the Setup menu, repeatedly press button **1** until `Setup` is displayed in field **2**.
- Press and hold button **1** to call up the Setup menu.

» Process complete.

- Press and hold button **1** to leave the Setup menu.

Using the anti-theft alarm system

– with anti-theft alarm system (DWA)[OE]

- Switch on operating readiness (38).
- Entering the Setup menu (44).

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

» Option field **4** is marked.

» The DWA indicator light will flash in the upper part of the display after the operating readiness is switched off.

- Press button **3** to switch off the anti-theft alarm system.

» Option field **4** is not marked.

Setting the time display

- Switch on operating readiness (➡ 38).
- Entering the Setup menu (➡ 44).

- Briefly press button **1** repeatedly until the symbol for the clock is displayed.
- Hold button **2** until the first value to be adjusted for the clock **3** is underlined.
- Briefly press button **2** to adjust the value.
- Press and hold button **2** until the next value is underlined.
- Briefly press button **2** to adjust the value again.
- Press and hold button **2** until the underline is no longer displayed.

» The clock is now set.

» The new settings will be accepted.

Set date

NOTICE

The date format can be modified via the Expert menu.◀

- Switch on operating readiness (➡ 38).
- Entering the Setup menu (➡ 44).

- In the Setup menu, briefly press button **1** repeatedly until the calendar symbol is displayed.
- Hold button **2** until the first value to be adjusted **3** is underlined.
- Briefly press button **2** to adjust the value.
- Press and hold button **2** until the next value is underlined.
- Press and hold button **2** until the underline is no longer displayed.

» The clock is now set.

» The new settings will be accepted.

Adjusting display brightness

- Switch on operating readiness (38).
- Entering the Setup menu (44).

- Press button **1** repeatedly until desired symbol **2** is selected.
- Use button **3** to select the desired display brightness.

Setting 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 domestic installation. Test the maximum permissible load on the domestic installation prior to the charging procedure.

Call up Expert menu

Requirement

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

- Entering the Setup menu (44).

- Press button **1** repeatedly until symbol **2** is selected.
- Press and hold button **3**.
- Press and hold button **1** to return to the Setup menu.

Expert menu

Functional description

Individual functions can be switched on or off and formats and units adjusted in the Expert menu.

All of the adjustments that can be made in the Expert menu will affect the multifunction display.

The Expert function is a special feature. It can be used to reset all adjusted functions to the factory settings.

Selecting information types

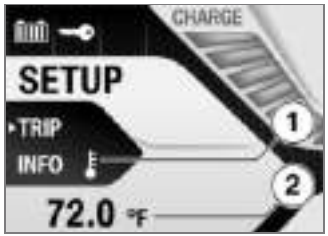
Requirement

Below is an example that shows how to display general information in the multifunction display in the expert menu.

- Switch on operating readiness (➡ 38).
- Entering the Setup menu (➡ 44).
- Call up Expert menu (➡ 46).

- Repeatedly press button **1** briefly until the desired information type **2**, such as ambient temperature, is selected.
- To select this information type briefly press button **3**.

» Option field **4** is marked.



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

- Up to 14 types of information can be activated in this field in theExpert menu on the multifunction display:
  - Ambient temperature
  - Time and date
  - Average speed
  - Average fuel consumption
  - Current fuel consumption
  - Overall fuel consumption
  - Overall energy recovery
  - Bonus range
  - Environment points

– High-voltage power
– Vehicle voltage
– Operating period
– Driving time of at least 7 km/h

Adjusting the format and unit

- Switch on operating readiness (➡ 38).
- Entering the Setup menu (➡ 44).
- Call up Expert menu (➡ 46).

» Formats and units can be adjusted in the Expert menu; these changes will affect the multifunction display, as shown in this example.

- Press button **1** briefly until the desired information type **2**, such as time format, is selected.
- To adjust this information type briefly press button **3**. The following formats and units can be adjusted:

– Time format
– Date format
– Temperature

Resetting to factory setting

- This function can be used to return all of the settings to the factory settings.
- Entering the Setup menu (➡ 44).
- Call up Expert menu (➡ 46).

- Press button **1** repeatedly until symbol **2** is selected.
- Press and hold button **3**.

NOTICE

If the INFO button is released before the RESET bar is filled,

the reset procedure will be interrupted.◀

» When symbol **4** is full, the Expert menu is exited and the start animation runs.

Heated handlebar grips

– with heated grips OE

Operating heated grips

NOTICE

Heated handlebar grips consume a lot of energy and reduce the range.
So the heated handlebar grips should only be used when they are really necessary.◀

- Switching on drive readiness (➡ 72).

NOTICE

The heated handlebar grip function is only available when the E-Scooter is operational.◀

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

The handlebar grips can be heated at two different levels.

Heating stage 1: 50% heat output

Heating stage 2: 100% heat output

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

- To switch off heated grips, press button **1** until heated grip symbol **2** is no longer shown in display.

Passenger seat

Using the passenger seat

- Turn vehicle key **1** clockwise.
- Lift passenger seat **2** to the fully open position.
- To close the passenger seat press the locking mechanism.

NOTICE

Do not leave the vehicle keys in the helmet compartment, as otherwise it will no longer be possible to open the passenger seat. We recommend that you only remove the vehicle key after you close the vehicle seat, or that you carry a second vehicle key with you.◀

» Passenger seat is locked.

Storage compartments

Front storage compartment

- To open the right-hand storage compartment, turn the vehicle key **1** counter-clockwise and press down.
- To close the right-hand storage compartment, press the flap in the locking mechanism and turn the vehicle key **1** clockwise.
- The key can be removed from either position.

Rear storage compartment

- Open the passenger seat.

- Position the helmet as pictured in the illustration.
- Close the passenger seat.

Setting

Mirrors

Adjusting mirrors

- Move mirror into desired position by pressing it lightly.

Headlight

Headlight range and spring preload

The headlight range generally remains constant due to the adjustment of the spring preload to the loading state.

If you are not sure about the correct headlight range setting, contact a BMW Motorrad partner.

Brakes

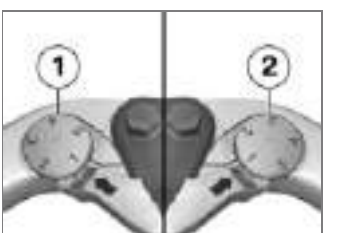
Adjusting brake lever

WARNING

Adjusting the handbrake lever while driving.

Accident hazard

- Only adjust the handbrake lever when the Scooter is stationary.◀



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

NOTICE

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

» Adjustment options:

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

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

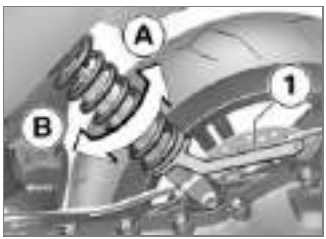
Spring preload

Setting

It is essential to set the spring preload 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.

Adjust spring preload on the suspension strut

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



- To increase the spring preload, turn the adjustment ring with the hook wrench **1** (tool kit) in arrow direction **A**.
- To decrease the spring preload, turn the adjustment ring with the hook wrench **1** (tool kit) in arrow direction **B**.

Basic setting of spring preload, rear
Suspension strut completely slack (One-up without load)
4 of 7 clicks preloaded (Two-up and load)

BMW ePOWER

Principle

The vehicle can be operated completely emission-free thanks to its electrical drive system.
The special high-voltage battery supplies the electrical machine with power.
The high-torque electrical machine ensures dynamic handling in all driving situations, such as, starting, accelerating and driving at high speeds.
The high-voltage energy storage system is charged via a charging cable, when parked, for example, or through energy recovery while riding.
Special power supplies allow for especially fast charging. But it is also possible to charge the vehicle using a common household power outlet, such as those found in residential buildings.

Energy recovery

The high-voltage battery is charged during the journey through energy recovery. Energy recovery ensures that very little energy is lost during braking. When the vehicle slows down the electrical machine becomes a generatorand converts into electricity some or all of the energy of motion released. This partly recharges the high-voltage battery, enabling the maximum possible range. This sort of charging can occur during the journey in several different ways:

– Throttle closed/coasting overrun mode
– When braking the E-Scooter

The indicator in the instrument cluster is in the CHARGE field. Anticipatory driving and timely reduction of speed are important for utilizing the vehicle's energy recovery optimally.

General notes

NOTICE

Do not leave the E-Scooter with a low charge for an extended period of time.
Before extended idle periods, consult the charge status indicator to ensure that the high-voltage battery is fully charged. The high-voltage battery will be damaged if the charge is too low.◀

NOTICE

If the range is less than 18 miles, charge the high-voltage battery or there could be a noticeable impact on the performance of the electric drive.◀

DANGER

Improper handling of electrical power.

Injury or material damage, e.g. due to electric shock or fire.

- Observe the safety regulations.◀

ATTENTION

Failure to check the charging equipment before operating the vehicle

Damage and excessive strain on the power supply

- Before the first charging procedure have your charging equipment checked by an electrical technician at the charging station.◀

CAUTION

Failure to adhere to the information at the charging station

Injury or damage as a result, for example, of electric shock or fire

- Adhere to the information at the charging station.◀

ATTENTION

Defective charging equipment

Risk of fire as a result, for example, of worn contacts or damage

- Only use charging equipment if there is no damage to it.◀

DANGER

Improper cleaning of charging connection.

Injury or damage as a result, for example, of electric shock or fire.

- Have the charging connection cleaned by appropriately trained staff only.◀

Repair

NOTICE

Opening the charging cable components will lead to damage and loss of the warranty. Only the manufacturer can repair the charging cable or replace the components (connector, coupling or Incable Modul).◀

What to do in the event of an accident

DANGER

Touching high-voltage lines after an accident.

Risk of death from electric shock.

- After an accident, do not touch high-voltage lines, such as the orange lines, or components that come into contact with exposed high-voltage lines.◀

CAUTION

Liquid seeping from the high-voltage battery

Risk of burns

- Do not touch liquids seeping from the high-voltage battery.◀

If you are in an accident with your vehicle, the following safety precautions should be noted with respect to the high-voltage system:

– Secure the accident scene.
– Immediately inform emergency services personnel, police officers or fire fighters that the vehicle has a high-voltage system.
– Turn off operating readiness.
– Do not breathe in any gases emitted from the high-voltage battery storage system; if necessary, stay away from the vehicle.

Charging cable

DANGER

Use of unapproved charging cable.

Injury or damage as a result, for example, of a cable fire.

- Only use approved charging cables and charging stations for charging.
- Ask for information about approved cables at the service desk.◀

ATTENTION

Improper use of the charging cable

Damage as a result, for example, of a cable fire

- Only use the charging cable to charge the E-Scooter.
- Do not extend the charging cable with other cables or adapters.◀

DANGER

Use of damaged charging cable.

Injury or damage as a result, for example, of electric shock or fire.

- Do not use damaged charging cables.
- Immediately discontinue use of damaged charging cables (e.g., if there is damage to the casing or cable).◀

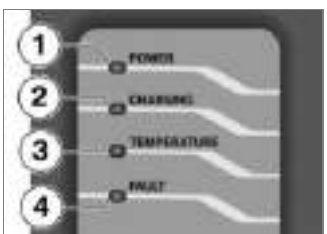
NOTICE

The vehicle coupling should be protected against moisture and dirt using the protective cap.◀

Use a standard charging cable, Mode3 charging cable or a fixed cable at a charging station to charge the vehicle. The charging cable can be stowed in the rear storage compartment.

Standard charging cable

The standard charging cable can be plugged into a domestic power outlet with a protective ground and used to charge the vehicle. The power supply from a domestic power outlet charges the vehicle using alternating current.



1: Power supply from a wall power outlet
2: Charge indicator
3: Monitor the power outlet for faulty wiring and a protective ground connection
4: Monitor the protective ground and communication with the E-Scooter

– with Mode3 charging cable[OA]

Mode3 charging cable

The Mode3 charging cable allows for safe charging using power outlets at publicly accessible charging stations. The charging procedure is faster than when connected to a domestic power outlet. The Mode3 charging cable might be attached to the charging station.

Charging procedure

Before charging

DANGER

Failure to adhere to the power supply connection safety information.

Injury or damage as a result, for example, of electric shock or fire.

- See the safety information for the respective power supply connection.◀

ATTENTION

Excessive load on the power supply connection

Risk of fire, for example, as a result of overheating of the domestic power outlet or excessive load on the power supply

- Check the maximum permissible load before using a domestic power outlet other than your own to charge the vehicle.◀

ATTENTION

Improper adjustment of the charging current

Damage

- Never adjust the charging current on the standard charging current higher than the maximum permitted continuous charging rate of the wall outlet.◀

NOTICE

The charging procedure can be stopped at any time and continued at a later point so other consumers can use the power supply or to avoid high power consumption as a result of simultaneous use by multiple consumers.◀

NOTICE

If the charging procedure is interrupted, e.g., as a result of a temporary power failure, the charging procedure will automatically resume after the interruption.◀

NOTICE

Charging in extreme ambient temperatures.

The charging procedure will slow in extreme ambient temperatures in order to protect the high-voltage battery.◀

NOTICE

The standard charging cable will not work in temperatures of less than -25 °F (-32 °C). Before the charging procedure, store the charging cable in a location with an ambient temperature of

between -25 °F (-32 °C) and +104 °F (+40 °C).◀

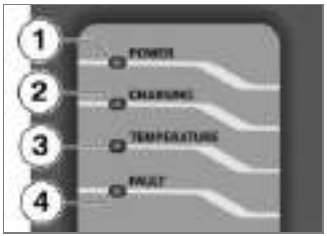
Start charging procedure

- Operating readiness switched off (➠ 39).

» The charging procedure only starts when operating readiness is switched off. The charging procedure will be interrupted if operating readiness is switched on during the charging procedure.

- Open the left flap.

- Remove the charging socket cover **1**.



- If necessary, connect the standard charging cable from the domestic power outlet or the Mode3 charging cable from the charging station. If charging at a charging station, follow any instruction at the charging station.

» The standard charging cable will automatically carry out all of the required test steps. If LED **1** turns green, the test was successful. If LED **3** turns red, the test was not successful and the charging procedure cannot start or the charging cable cannot be connected to the vehicle. The following test steps will be carried out:

– The wall outlet will be checked to see if the wiring is incorrect
– A check will be carried out to see if there is a protective ground connection
– A check will be carried out to ensure that the prerequisites for proper charging are in place

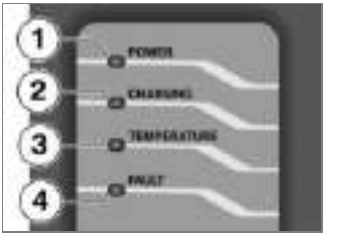
» The status displays / fault messages are listed in the chapter "Technical Data". If fault messages appear, they can be reset as follows:

– Separate the standard charging cable from the voltage supply by removing the connector from the wall outlet.
– Reinsert the connector after 3 seconds.

» Critical faults that indicate damage to the standard charging cable cannot be reset. These faults include:

– Frozen relays (device permanently faulty)
– Temperature sensor faulty
– Fault current test negative
• Check the maximum permitted continuous charge rate of the wall outlet.

• Connect the charging cable **2** to the charging socket **1** on the E-Scooter. Plug in the charging cable connector and press until the locking mechanism **3** is engaged.



• Observe the charging cable displays.
» The standard charging cable will automatically carry out all of the required test steps. If LED **2** turns green, the test was successful and charging will begin. If LED **4** turns red, the test was not successful and the charging procedure cannot begin. The following test steps will be carried out:
– A check will be carried out to see if there is a protective ground connection
– A check will be carried out to ensure that the prerequisites for proper charging are in place
» The status displays / fault messages are listed in the chapter "Technical Data".

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 displayed as a numerical percentage value **2**. After a certain period of time, the display is automatically switched to Stand-by-Modus (energy saving mode).

- In order to display the current charging status again, briefly press the INFO or TRIP button.

End charging procedure

Requirement

When ending the charging procedure follow the sequence of the steps exactly.

Requirement

Unlock the cable plug before detaching it. End the charging procedure at the charging station before detaching the charging cable if you are charging at a charging station.

- Press the release button **3** and detach the charging cable **2** from the charging socket **1** on the E-Scooter.

- Put the charging connection cover **1** on.
- If necessary, detach the standard charging cable from the domestic power outlet or the Mode3 charging cable from the charging station.
- Stow the standard charging cable in the rear storage compartment. Return fixed charging cable to location provided on the charging station.

Using the ePOWER energy display efficiently

Energy recovery and energy consumption depend on driving style. Driving style can be optimized with the help of the power gage.

Energy is recovered when the vehicle slows down (not in SAIL riding mode) and the brakes are applied and is displayed in the drive display in the CHARGE field **1**. Energy consumption when driving can be optimized through efficient braking and is displayed in the drive display in section ePOWER **2**.

For both fields, each of which is comprised of 10 segments, there are four possible statuses:

– Segment not available (segments are red)
– Segment activated (segments are blue)
– Segment limited (segments are gray)
– Segment not activated (empty)

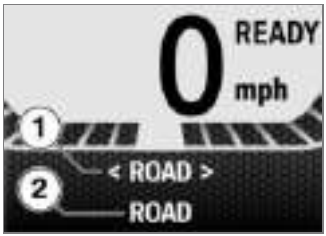
Setting riding mode

- Switch on operating readiness (38).

- Briefly press button **1** repeatedly until the desired riding mode is adjusted.

NOTICE

Details on the selectable driving modes are provided in the chapter "Technology in Detail".◀



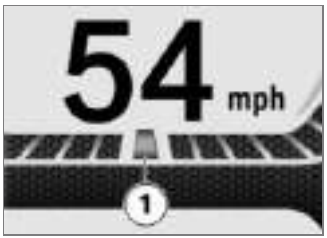
The first selectable riding mode **1** and the current riding mode **2** are displayed.

ROAD: Standard mode.

ECO PRO: For riding with limited acceleration and a range optimization of up to 20%.

DYNAMIC: For brisk riding.

SAIL: For deceleration-free and smooth cruising. The vehicle only decelerates as a result of driving resistance and no energy flows back between the electrical machine and the high-voltage battery.



In order to use the SAIL riding mode, indicator **1** must be exactly in the middle of the drive display.

Cruising range

Requirement

The range is based on the driving style and shows the available distance until the next charge.

Range trend display **1** for current driving style:

 increasing

 constant

 decreasing

- Range **2** indicates the distance that can be driven until the next charge.

Riding

Safety information

Modifications

ATTENTION

Modifications to the E-Scooter

Damage to the affected parts, failure of safety-relevant functions. Damage caused in this way is not covered by the warranty.

- Do not make any modifications.◀

Rider's Equipment

Do not ride without the correct clothing. BMW Motorrad recommends always wearing the following riding gear:

– Helmet
– Rider's suit
– Gloves
– Boots

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

Load

WARNING

Reduced riding stability caused by overloading and uneven loading

Accident hazard

- Do not exceed the gross weight limit and observe the loading information.◀
- Adjust spring preload and tire pressure for the current gross motorcycle weight.

– with luggage rack OA

- Comply with maximum payload of luggage rack.

Payload of luggage rack
max 20 lbs (max 9 kg)◁

– with topcase OA

- Observe the maximum payload and maximum speed as indicated on the label in the Topcase (see also the chapter "Accessories").◁

Speed

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

– Settings of spring-strut and shock absorber system
– Unevenly distributed load
– Loose clothing
– Insufficient tire inflation pressure
– Tire tread in poor condition

– Attached luggage systems, such as Topcase

Modifications

ATTENTION

Modifications to the E-Scooter

Damage to the affected parts, failure of safety-relevant functions. Damage caused in this way is not covered by the warranty.

- Do not make any modifications.◀

Observe checklist

- Use the following checklist to check your E-Scooter at regular intervals.

Requirement

Before every journey:

- Check the charge level of the high-voltage battery.
- Check operation of the brake system.
- Check operation of the lighting and signal system.
- Check tire tread depth (➡ 91).
- Check secure hold of Topcase and luggage.

Requirement

At every tenth recharging procedure:

- Adjust spring preload on the suspension strut (➡ 53).
- Check front brake pad thickness (➡ 85).
- Checking rear brake pad thickness (➡ 86).
- Checking brake fluid level of the front wheel brake (➡ 88).
- Checking brake fluid level in rear wheel brake (➡ 89).
- Checking coolant level (➡ 90).

Starting

Pre-Ride-Check

After the operating readiness is switched on, the instrument cluster runs a test on the display as well as the indicator and warning lights, known as the "Pre-Ride-Check". This is comprised of two phases. The Pre-Ride-Check is terminated prematurely if the brake and start button are pushed.

Phase 1

The universal warning light and the symbol for the electrical machine electronics flash red.
The low-fuel warning light flashes yellow.

Phase 2

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

As soon as the image sequence is completed, the original display (background and values, such as TRIP, INFO, etc.) will be displayed.
The power gages will be activated in both directions (CHARGE and ePOWER) until full scale deflection.

» If there are temporary warnings, they will be displayed for about 5 more seconds.

If one of the indicator or warning lights did not turn on:

WARNING

Defective warning lights
Lack of display of malfunctions
- Check the display of all indicator and warning lights.◀
- Have the fault corrected by a BMW Motorrad partner as quickly as possible.

ABS self-diagnosis

The self-diagnosis routine is determining whether BMW Motorrad ABS is ready for operation. The self-diagnosis routine runs automatically when you switch on the operating readiness.

Phase 1

» System components are checked when the vehicle is stationary.

 flashes.

Phase 2

» System components are checked when the vehicle is being driven.

– ABS self-diagnosis completed. The ABS symbol is no longer displayed.

- Check the display of all indicator and warning lights.

 ABS self-diagnosis routine not completed
The ABS function is not available, as the self-diagnosis function has not been completed. (The E-Scooter must reach a specified minimum speed before the system can check operation of the wheel sensors: min 3 mph (min 5 km/h))

If an ABS error is displayed after the ABS self-diagnosis is completed:
- It remains possible to continue riding. It must be noted that the availability of the ABS function is restricted or it is not available at all.
- Have the fault corrected by a BMW Motorrad partner as quickly as possible.

TCA self-diagnosis

The self-diagnosis routine is determining whether BMW Motorrad TCA is ready for operation. The self-diagnosis routine runs automatically when you switch on the operating readiness.

Phase 1

» System components are checked when the vehicle is stationary.

 flashes.

Phase 2

» System components are checked when the vehicle is being driven.

– TCA self-diagnosis completed. The RBS symbol is no longer displayed.

• Check the display of all indicator and warning lights.

TCA self-diagnosis routine not completed
The TCA function is not available, as the self-diagnosis function has not been completed. (The E-Scooter must reach a specified minimum speed with the motor running before the system can check operation of the wheel sensors: min 3 mph (min 5 km/h))

If a TCA fault is displayed after the TCA self-diagnosis is completed:

• It remains possible to continue riding. It must be noted that the availability of the TCA function is restricted or it is not available at all.

• Have the fault corrected by a BMW Motorrad partner as quickly as possible.

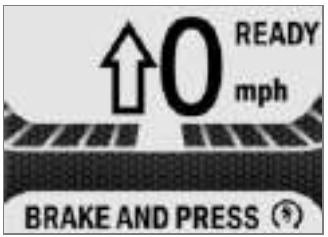
E-Scooter ready for operation

After carrying out the Pre-Ride-Check and the ABS self-diagnosis, the E-Scooter is operational for all electricity consumers.

NOTICE

To preserve the 12V battery, only use active current load for as long as is absolutely necessary and switch off operational readiness.◀

E-Scooter operational



The E-Scooter is operational when the start button is pressed while the brake is applied. The symbol READY and the arrow are displayed. All systems are operational. Pressing the emergency switch will deactivate the E-Scooter.

NOTICE

Driving in low temperatures.
If the temperature is low (less than 32 °F (0 °C)), the power output and consumption will slow as a result of the sharp increase in the internal resistance of the cells.◀

NOTICE

Overheated high-voltage energy storage system when the vehicle is stationary.
In exceptional cases, it is possible for the high-voltage battery to overheat (e.g., in the event of extreme ambient temperatures and direct sunlight). The E-Scooter will no longer be operational if the high-voltage battery overheats.◀

NOTICE

Overheated high-voltage battery during the trip.
Very high temperatures (more than 95 °F (35 °C)) can compromise the service life of the battery cells. If the high-voltage battery overheats during the trip, the drive power will gradually be reduced in order to cool down the high-voltage battery. When this happens, the ePOWER power gage in the instrument cluster will drop. If the temperature continues to increase, the vehicle will stop until the high-voltage energy storage system has cooled off. If the power gage drops to 0, the E-Scooter will not be operational and the vehicle will come to a stop.◀

Switching on drive readiness

- Switch on operating readiness (➡ 38).
  - » Pre-Ride-Check in progress. (➡ 69)
  - » ABS self-diagnosis is performed. (➡ 70)
  - » TCA self-diagnosis is performed. (➡ 71)
- Apply the brake.

- Press starter button **1**.

NOTICE

The E-Scooter is not operational when the kickstand is folded out. If the side stand of an operational E-Scooter is folded out, the vehicle will no longer be operational.◀

» E-Scooter is operational.
» If the E-Scooter is not operational, the fault table may be of assistance. (➡ 112)

Driving with ePOWER

WARNING

Reduced awareness of the E-Scooter in electric mode.
Accident hazard
- With driving in electric mode, pedestrians and others on the road may not as aware of the E-Scooter because of its lack of engine noise.
- Drive with particular care.◀

Energy recovery through deceleration

The high-voltage battery is partially recharged through energy recovery. During deceleration, the electrical machine functions like a generator and converts kinetic energy into electrical energy.
Deceleration depends on the driving mode and the position of the e-throttle grip. The less the e-throttle grip is twisted, the greater the deceleration. This recovers energy and charges the high-voltage battery. If the e-throttle grip is not twisted at all, the deceleration will be similar to light braking.
Energy can be recovered if the following conditions are met:
– E-Scooter is in motion.
– Speed is more than approximately 2 mph (3 km/h).

Energy cannot be recovered in the following situations:
– The high-voltage battery is completely charged.
– The temperature of the high-voltage battery is very low or very high. In the winter or summer, energy recovery may not be available temporarily after starting the vehicle.

WARNING

When there is no energy recovery, the electric drive cannot be braked. The E-Scooter could coast further than expected.
Accident hazard
• Always be prepared to brake.◀

Driving situations for deceleration
If deceleration is likely while driving, this can be used for energy recovery. The following driving situations may be suitable for this purpose:
– Deceleration on a route segment on a slope
– Deceleration before a red light

Avoid late or heavy braking. Instead, decelerate the vehicle using energy recovery.

SAIL
The electrical drive allows coasting without consuming or recovering energy. This driving mode is called SAIL. By employing anticipatory driving, energy consumption is reduced and the range increased. No energy is recovered while the vehicle is coasting.
If a route segment can be driven without braking, is advantageous to coast it. The following driving situations may be suitable for this purpose.
Driving situations for SAIL
– Coasting on a straight road with a downgrade and no obstacles
– Coasting on a road with no impediments

Running in

Brake pads
New brake pads must be run in before they achieve their optimum friction force. This initial reduction in braking efficiency can be compensated for by exerting greater pressure on the brake levers.

WARNING

New brake pads
Extension of the braking distance, accident hazard
• Brake early.◀

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

WARNING

Loss of adhesion of new tires on wet roads and at extreme angles

Accident hazard

- Always think well ahead and avoid extreme angles.◀

Brakes

How do you achieve the shortest stopping distances?

The dynamic load distribution between the front and rear wheel changes during braking. The heavier you brake, the greater the weight transfer to the front wheel. Increases in the load on an individual wheel are accompanied by a rise in the effective braking force that the wheel can provide.

To achieve the shortest possible braking distance, the front brake must be applied quickly and with progressively greater levels of force. This procedure provides ideal exploitation of the extra weight transfer to the front wheel. If the brakes are applied abruptly and with a lot of force, the dynamic load distribution may not be in line with the increased deceleration.

Descending mountain passes

WARNING

Braking only with the rear-wheel brake when descending mountain passes.

Loss of braking action. Destruction of the brakes caused by overheating.

- Use both front and rear brakes, and make use of energy recovery as well.◀

Wet, soiled brakes

Moisture and dirt on the brake rotors and the brake pads result in a decrease in the braking action.

Delayed or poorer braking action must be expected in the following situations:

– When driving in the rain and through puddles.
– After washing the vehicle.
– When driving on roads spread with salt.
– After working on the brakes due to oil or grease residues.
– When driving on soiled roads or offroad.

WARNING

Poorer braking action due to moisture and dirt

Accident hazard

- Brake until brakes are dry or clean; clean if necessary.
- Brake early until the full braking action is available again.◀

Parking the E-Scooter

Side stand

- Switch off operational readiness.

ATTENTION

Poor ground conditions in area of stand

Component damage cause by tipping over

- Always check that the ground under the stand is level and firm.◀
- Fold out side stand and park E-Scooter.

» When the side stand is folded out, the emergency brake is automatically engaged. This prevents the vehicle from rolling.

ATTENTION

Loading of the side stand with additional weight

Component damage cause by tipping over

- Do not sit on the motorcycle when it is parked on the side stands.◀
- Turn the handlebars to left.

Main Stand

- Switch off operational readiness.

ATTENTION

Poor ground conditions in area of stand

Component damage cause by tipping over

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

ATTENTION

Center stand folds if subject to sharp movements.

Component damage cause by tipping over

- Do not sit on the motorcycle while it is resting on the center stand.◀
- Fold out center stand and prop up E-Scooter.

Securing E-Scooter for transport

- Protect all component surfaces against which straps are routed against scratching (e.g., with tape).

ATTENTION

Motorcycle tips to the side when raising

Component damage cause by tipping over

- Secure the motorcycle against tipping to the side, preferably with the assistance of a second person.◀
- Push E-Scooter onto transport surface, and do not place on side stand or center stand.

ATTENTION

Pinching of components

Component damage

- Do not pinch components, e.g. brake lines or wiring harnesses.◀
- Lay straps at front over lower fork bridge on both sides and tighten.

- Secure straps in the rear right of the holding plate of the footrest.

- Secure straps in the rear left of the holding plate of the footrest.

- Tighten all straps evenly; the E-Scooter should be pulled down against its springs with the suspension compressed as much as possible.

Technology in detail

General notes

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

Antilock Brake System (ABS)

How does ABS work?

The maximum braking force that can be transferred to the road surface is partially dependent on the friction coefficient of the road surface. Gravel, ice, snow and wet roads offer a considerably poorer friction coefficient than a dry, clean asphalt surface. The poorer the friction coefficient of the road surface is, the longer the braking distance will be.
If the maximum transferable braking force is exceeded when the rider increases the brake pressure, the wheels begin to lock and driving stability is lost, and a fall can result. Before this situation occurs, ABS intervenes and adjusts the brake pressure to the maximum transferable braking force. This enables the wheels to continue to turn and maintains riding stability regardless of the road condition.

What happens when rough roads are encountered?

Bumpy or rough roads can briefly lead to a loss of contact between the tires and the road surface, until the transferable braking force is reduced to zero. If the brakes are applied in this situation, the ABS must reduce the brake pressure to ensure driving stability when contact to the road is restored. At this point, the BMW Motorrad ABS must assume extremely low friction coefficients (gravel, ice, snow) so that the running wheels turn in every imaginable case and the driving stability is ensured. After detecting the actual conditions, the system adjusts the optimum brake pressure.

What are the design features of the BMW Motorrad?

The BMW Motorrad ABS ensures stability on all surfaces. The system is not optimized for the special conditions encountered under extreme weather during off-road and race-track use.

Special situations

To detect the tendency of the wheels to lock up, the speeds of the front and rear wheel are compared. If implausible values are detected over a longer period of time, the ABS function is deactivated for safety reasons and an ABS error is indicated. A self-

diagnosis routine must be completed before the error will be displayed.
Apart from problems on the BMW Motorrad ABS, unusual riding conditions can also cause a fault message to be generated.

Unusual riding conditions

– Driving on the rear wheel (wheelie) for a longer period.
– Rear wheel spinning in place with front brake engaged (burn out).
– Locked-up rear wheel for a longer period of time, e.g. when riding downhill offroad.

Should a fault code occur due to an unusual driving condition, the ABS function can be reactivated by switching the operational readiness off and then on again.

How important is regular maintenance?

WARNING

Brake system not regularly serviced

Accident hazard

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

Reserves for safety

But remember, the potentially shorter braking distances which the 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.
Be careful in curves! When you apply the brakes on a corner, the motorcycle's weight and momentum take over and even the BMW Motorrad ABS is unable to counteract their effects.

Torque Control Assist (TCA)

The TCA limits the motor torque, depending on the rear wheel slip. To enable optimal control of the drive torque by the driver, the electric motor's electric control system monitors the rear wheel speed and reduces the drive torque if it exceeds a certain limit. The TCA assists the rider, particularly during start-up, and prevents uncontrolled rear wheel spin on road surfaces with reduced friction.
In addition, when the energy recovery of the vehicle is high as a result of deceleration, the TCA helps to prevent the rear wheel from locking up on slippery surfaces. The function is similar to

the ABS function when braking with the rear wheel brake.

Riding mode

Selection

To adjust the E-Scooter to the road conditions and driving style, one of four riding modes can be selected:

– ROAD (standard mode)
– SAIL (coasting mode)
– DYNAMIC (sport mode)
– ECO PRO (environmental mode

The riding modes can be changed while driving.

Each riding mode affects the behavior of the E-Scooter in a different way. The most recently selected riding mode is reactivated automatically after the operational readiness is switched off and on again.

Changing the riding mode affects the following parameters and is displayed in the drive indicator in the CHARGE or ePOWER fields accordingly:

– Energy recovery as the vehicle decelerates (artificial drag torque)
– Energy consumption (acceleration)

ROAD

Medium energy recovery as the vehicle decelerates with full acceleration is achieved in ROAD mode. ROAD mode is the standard mode.

SAIL

SAIL mode enables deceleration-free and smooth cruising. There is no energy recovery as the vehicle decelerates. Energy can still be recovered by applying the brake.

DYNAMIC

Maximum energy recovery as the vehicle decelerates is achieved in DYNAMIC mode. This results in a dynamic driving experience especially in combination with the maximum acceleration provided.

ECO PRO

Maximum energy recovery as the vehicle decelerates with limited acceleration is achieved in ECO PRO mode. This results in range optimization of approximately 10-20%. ECO PRO mode is designed for maximum range.

Maintenance

General notes

The "Maintenance" chapter describes work involving the checking and replacement of wear parts that can be performed with a minimum of effort.

If special tightening torques are to be taken into account for assembly, these are listed. An overview of all required tightening torques is contained in the chapter "Technical Data".

Information on additional maintenance and repair work is provided in the Repair Manual for your motorcycle on DVD, which you can obtain from your authorized BMW Motorrad retailer.

DANGER

Improperly performed maintenance and repair work.

Risk of death from electric shock.

- Special tools and thorough specialized knowledge are required to carry out work not described here.
- Only carry out the work described in this chapter. The work described here should only be carried out with the ignition switched off. In cases of doubt, contact your BMW Motorrad partner.◀

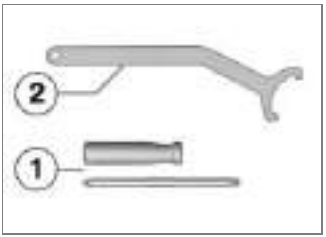
DANGER

Working with the high-voltage system.

Risk of death

- The vehicle high-voltage system is a self-contained system. It is safe as long as no work is performed on the technical components.
- Modifications and work on the high-voltage system should only be performed by a BMW Motorrad partner with appropriately trained staff.◀

Standard tool kit



1 Reversible screwdriver insert
Phillips PH1 and Torx T25
– Remove body panels.

2 Hook wrench
– Adjust spring preload on the suspension strut (➠ 53).

Brake system

Check brake operation

- Operate right brake lever.

» A clear pressure point can be felt.

- Operate left brake lever.

» A clear pressure point can be felt.

- To check the emergency brake, fold out the side stand and push the E-Scooter back and forth.

» E-Scooter will not move.

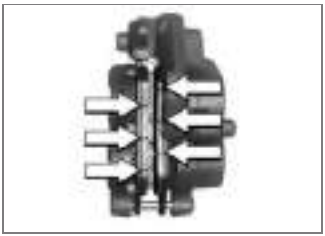
No clear pressure points can be felt and the Scooter can be moved:

- Have the brakes checked by a BMW Motorrad partner.

Check front brake pad thickness

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

- Conduct a visual inspection of the brake pad thickness. Viewing direction: Left and right between wheel and front suspension toward brake pads **1**.



Front brake-pad wear limit
min 0.04 in (min 1.0 mm) (Only friction material without carrier plate. Wear markings (grooves) must be clearly visible.)

If the wear indicators are no longer clearly visible:

WARNING

Dropping below the minimum pad thickness

Reduced braking action, damage to the brake

- In order to ensure the operating reliability of the brake system, make sure that the brake pads are not worn beyond their minimum thickness.◀
- Have the brake pads replaced by a BMW Motorrad partner.

Checking rear brake pad thickness

- Park the E-Scooter, making sure it is on level and firm ground.

- Conduct a visual inspection of the brake pad thickness. Direction of view: From bottom right looking at brake pads **1**.

Rear brake-pad wear limit
min 0.04 in (min 1.0 mm) (Only friction material without carrier plate.)

If the brake pads have fallen below the minimum lining thickness:

ATTENTION

The parked vehicle rolls away as a result of reduced braking power caused by the minimum lining thickness not being met

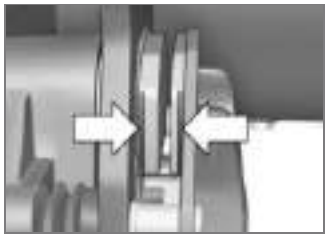
Component damage caused by tipping over, despite the side stand being extended

- Do not let the lining thickness for the parking brake fall below the minimum.◀
- Have the brake pads replaced by a BMW Motorrad partner.

Check the brake pad thickness of the parking brake

- Park theE-Scooter, making sure it is on level and firm ground.

- Conduct a visual inspection of the brake pad thickness. Direction of view: From right looking at brake pads **1**.



Brake-pad wear limit of parking brake
min 0.04 in (min 1.0 mm)

If the wear indicators are no longer visible:

WARNING

Dropping below the minimum pad thickness

Reduced braking action, damage to the brake

- In order to ensure the operating reliability of the brake system, make sure that the brake pads are not worn beyond their minimum thickness.◀
- Have the brake pads replaced by a BMW Motorrad partner.

Checking brake fluid level of the front wheel brake

WARNING

Insufficient brake fluid in the brake-fluid reservoir

Considerably reduced braking performance caused by air in the brake system

- Stop riding immediately until fault is rectified.
- Check brake fluid level regularly.◀
- Make sure ground is level and firm and place E-Scooter on its center stand.

- Read the brake fluid level on the sight glass **1** of the right-hand brake fluid reservoir.

NOTICE

The brake fluid level in the brake-fluid reservoir drops due to brake pad wear.◀

Front brake fluid level
Brake fluid, DOT4
The brake fluid level must not fall below the MIN mark. (Brake-fluid reservoir horizontal)

If brake fluid level falls below the approved level:

- Have the defect corrected by a BMW Motorrad partner as quickly as possible.

Checking brake fluid level in rear wheel brake

WARNING

Insufficient brake fluid in the brake-fluid reservoir

Considerably reduced braking performance caused by air in the brake system

- Stop riding immediately until fault is rectified.
- Check brake fluid level regularly.◀
- Make sure ground is level and firm and place E-Scooter on its center stand.

- Read the brake fluid level on the sight glass **1** of the left-hand brake fluid reservoir.

NOTICE

The brake fluid level in the brake-fluid reservoir drops due to brake pad wear.◀

	Rear brake fluid level
Brake fluid, DOT4	
The brake fluid level must not fall below the MIN mark. (Brake-fluid reservoir horizontal)	

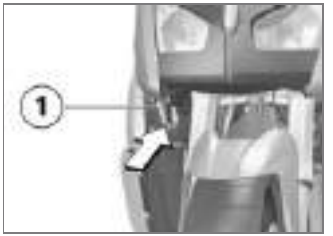
If brake fluid level falls below the approved level:

- Have the defect corrected by a BMW Motorrad partner as quickly as possible.

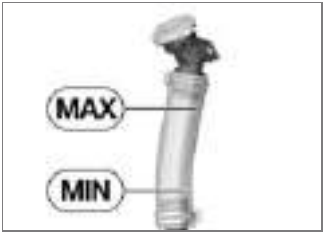
Coolant

Checking coolant level

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



- Check the coolant level **1** visually. Viewing direction: left from the front between the fork and radiator cowl.



	Target coolant level in the equalizing tube
Between the MIN and MAX marks (during cold cooling cycle)	

- To make visual inspection easier you can remove the side panel.
- Remove side trim panel (94).

If coolant level drops below approved level:

- Have the coolant corrected by a BMW Motorrad partner as quickly as possible.

Tires

Checking tire pressure

WARNING

Incorrect tire inflation pressure.

Deteriorated driving characteristics of the Scooter. Reduction of the life of the tires.

- Ensure proper tire inflation pressure.◀

WARNING

Automatic opening of vertically installed valve inserts at high speeds

Sudden loss of tire inflation pressure

- Use valve caps with rubber sealing ring and screw on firmly.◀

- Check tire pressures against data below.

 Tire pressure, front
36.3 psi (2.5 bar) (with tire cold)

 Tire pressure, rear
36.3 psi (2.5 bar) (Single rider, with cold tires)
42.1 psi (2.9 bar) (Driver with passenger and/or load, with cold tire)

If tire pressure is too low:

- Correct tire pressure.

Rims and tires

Checking wheel rims

- Make sure ground is level and firm and place E-Scooter on its center stand.
- Subject wheel rims to visual inspection for defects.
- Have damaged rims checked by a BMW Motorrad partner and replaced, if necessary.

Check tire tread depth

WARNING

Riding with heavily worn tyres

Risk of accident due to poorer rideability

- If necessary, replace the tyres before the legally specified minimum tread depth is reached.◀
- Make sure ground is level and firm and place E-Scooter on its center stand.
- Measure tire tread depth in main tread grooves with wear indicators.

NOTICE

Tread wear marks are integrated into the main grooves on every tire. If the tire tread has worn down to the level of the marks, the tire is completely worn. The locations of the marks are indicated on the edge of the tire, e.g. by the letters TI, TWI or by an arrow.◀

When the minimum tread depth is reached:

- Replace the worn tires.

Tire recommendation

For every size of tire, BMW Motorrad has tested and approved certain makes as roadworthy. BMW Motorrad cannot evaluate the suitability of other tires, and can therefore take no responsibility for their driving safety.

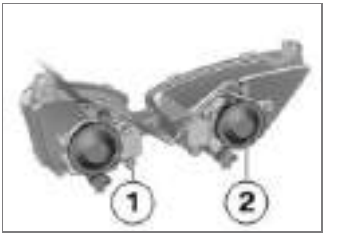
BMW Motorrad recommends only using the tires tested and approved by BMW Motorrad. Detailed information can be obtained from your authorized BMW Motorrad retailer or online at:

bmw-motorrad.com

Light sources

Replacing low and high-beam light sources in headlight

- Turn off operating readiness.
- Remove side trim panel (➡ 94).
- To replace light source for low-beam headlight remove right side panel cover.
- To replace light source for high-beam headlight remove left side panel cover.



- To replace light source for low-beam headlight remove cover **1**; to replace light source for high-beam headlight remove cover **2**.

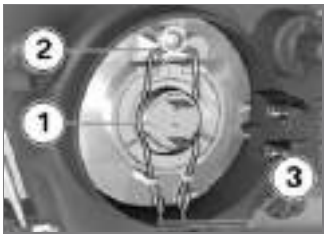
- Disconnect plug **1**.

- Remove wire spring clip **1** from the retainers and fold up.
- Remove light source **2**.
- Replace defective light source.

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

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

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



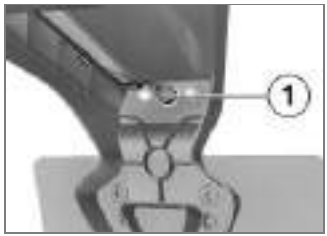
- Replace light source **1**; ensure proper seating of nose **2**.
- Replace wire spring clip **3** in the retainers.

- Connect connector **1**.

- Install cover **1** or cover **2**.
- Installing side trim panel (➡ 95).

Replacing bulb for license-plate light

- Turn off operating readiness.



- Pull license-plate light **1** out of light housing.

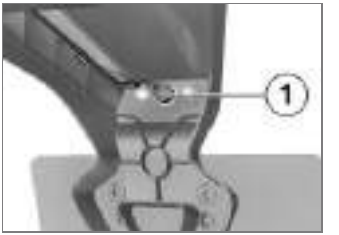
- Remove light source from socket.

- Replace defective light source.

	Light source for license plate light
W5W / 12 V / 5 W	

- To protect glass on new bulb against contamination, always use a clean, dry cloth to hold it; do not touch with bare fingers.

- Insert bulb in socket.



- Insert license plate light source **1** into the light housing.

Parking lights, replacing

The parking light can only be replaced as a unit.

- Contact a BMW Motorrad partner.

Replace LED turn indicator

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

- Contact a BMW Motorrad partner.

Replacing LED tail light

The LED tail light can only be replaced as a unit.

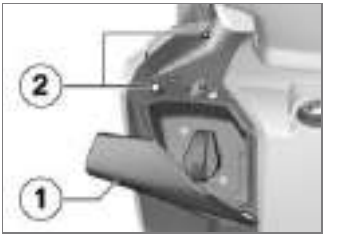
- Contact a BMW Motorrad partner.

Fairings and panels

Remove side trim panel

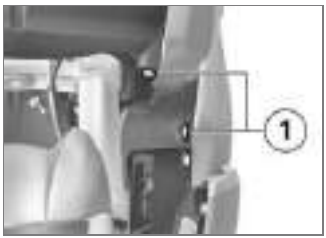
NOTICE

This description is based on the left side panel cover and applies analogously for the right side panel cover.◀



- Open the flap **1**.

- Remove screws **2**.



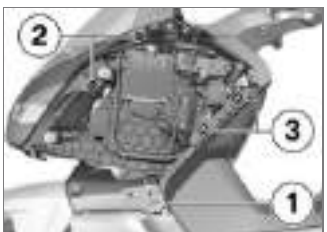
- Remove screws **1**.

- Remove the side trim panel **1** from fasteners **2** and **3**.
- Lift the side trim panel slightly in position **4** and remove.

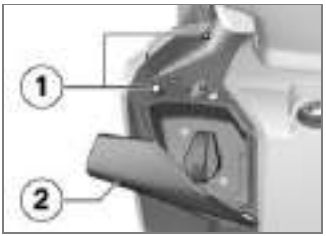
Installing side trim panel

NOTICE

This description is based on the left side panel cover and applies analogously for the right side panel cover.◀



- Set side panel cover in mount **1**.
- Tilt side panel cover up and press fasteners **2** and **3**.



- Install screws **1**.
- Close flap **2**.

- Install screws **1**.

Battery

General notes

Correct battery maintenance combined with proper charging and storage procedures extends the 12V battery's service life, and is also required for warranty claims.

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

– Keep the surface of the battery clean and dry.
– Note the following charging information when charging the 12V battery:

ATTENTION

Discharging the connected 12V battery through the vehicle electronics (e.g., clock)

Complete discharging of the 12V battery, resulting in exclusion of warranty claims

• If the vehicle is not to be ridden for more than four weeks: connect the charging device to the 12V battery.◀

ATTENTION

Charging of the connected 12V battery on the battery terminals

Damage to the vehicle's electronics

• Disconnect the 12V battery before charging on the battery terminals.◀

ATTENTION

Charging a completely drained 12V battery using the 12V socket

Damage to the vehicle's electronics

• Always charge a completely drained 12V battery (with a battery voltage of less than 9 V, the indicator lights and multifunction display will remain off when the ignition is switched on) directly via the terminals of the **disconnected** battery.◀

Charge 12V battery

The E-Scooter cannot be driven or operated. Ensure that the 12V battery is completely discharged:

• Switch on operating readiness (38).
» Check multifunction display:
– If the multifunction display remains off when the operating readiness is switched on, the battery is completely discharged. The disconnected 12V battery must be charged directly via the terminals.
– If the multifunction display is switched on, the 12V battery is not yet completely discharged. The connected 12V battery can be charged via the 12V socket.

- Operating readiness switched off (➡ 39).
- Remove side trim panel (➡ 94).
- Charge 12V battery with a suitable charging device. Observe the operating instructions for the charger as you do this.

NOTICE

In the event of extended driving breaks the 12V battery must be recharged regularly. See the operating instructions for your 12V battery. Before start-up, the 12V battery must be recharged.◀

- Installing side trim panel (➡ 95).

Replace 12V battery

– with anti-theft alarm system (DWA)[OE]

- Switch off anti-theft alarm system if necessary.◁
- Turn off operating readiness.
- Remove side trim panel (➡ 94).

- Separate connector **1** for right turn signal.

ATTENTION

Incorrect battery disconnection

Danger of short circuit

- Follow the disconnection sequence.◀
- Remove bolt **2** and loosen battery negative battery cable.
- Remove bolt **3** and loosen positive battery cable.
- Remove screw **4** and take out mounting bracket **5**.
- Remove 12V battery from battery holder.
- Push 12V battery into the battery holder.

- Refit the mounting bracket **1** on the 12V battery.
- Install screw **2**.

ATTENTION

Incorrect battery connection

Danger of short circuit

- Follow the installation sequence.◀
- Position positive battery cable and insert bolt **3**.
- Position negative battery cable and insert bolt **4**.
- Link connector **5** for right turn signal.
- Installing side trim panel (➡ 95).

Fuses

Removing fuse

ATTENTION

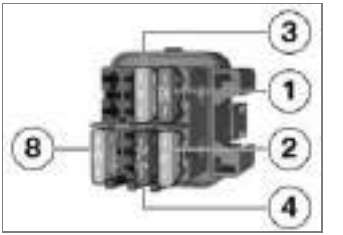
Bypassing defective fuses
Risk of short circuit and fire
- Do not bypass defective fuses.
- Replace defective fuses with new fuses.◀
- Turn off operating readiness.
- Remove right side trim panel.

- To open the fuse box **1**, push the locking levers apart and remove the safety cover.

NOTICE

If there are frequent problems with the fuses, have the electrical system checked by a BMW Motorrad partner.◀

Installing fuse



- Replace faulty fuse with a fuse with the required current level.

NOTICE

An overview of the fuse assignment and the required amperages is provided in the chapter "Technical Data". The numbers in the graphic match the fuse numbers.◀

- Close fuse cover.
» Locking mechanism audibly engages.
- Installing side trim panel (➡ 95).

Diagnostic connector

Removing the diagnostic connector

- Remove side trim panel (➡ 94).

- Take diagnostics connector **1** out of bracket **2** and remove cover cap **3**.

» The diagnosis and information system interface can be connected at the diagnostic connector **1**.

Secure the data link connector

- Disconnect the diagnosis and information system interface.

- Unscrew cover cap **3** and insert the diagnostics connector **1** in bracket **2**.
- Installing side trim panel (➡ 95).

Accessories

General notes

BMW Motorrad recommends the use of parts and accessories for your vehicle that are approved by BMW for this purpose.
Your authorized BMW Motorrad retailer is the right place to go for genuine BMW parts and accessories,other BMW approved products, and 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 these products.
Conversely, BMW is unable to accept any liability whatsoever for parts and accessories which it has not approved.

CAUTION

Use of products from other manufacturers
Safety risk

- BMW Motorrad cannot examine or test each product of outside origin to ensure that it can be used on or in connection with BMW motorcycles without constituting a safety hazard. Nor is this guarantee provided when the official approval of a specific country has been granted. Tests conducted by these instances cannot make provision for all operating conditions experienced by BMW motorcycles and, consequently, they are not sufficient in some circumstances.
- Use only parts and accessories approved by BMW for your motorcycle.◀

Whenever you are planning modifications, comply with all the legal requirements. The motorcycle must not violate the regulations governing motorcycle approval for highway use applicable in your own country.

Onboard power outlets

Information on using 12V sockets:

Operating electrical accessories
The battery capacity is not monitored when 12V sockets are in use. If accessory devices are operated for an extended period of time without activation of the high-voltage battery, the battery may be fully discharged. As a result, the E-Scooter may not be able to start.

Cable routing
Observe the following when routing cable from 12V sockets to additional devices:
– Cables must not hinder the rider's movement.
– Cables must not restrict the steering angle and driving characteristics.

– Cables must not become trapped.

Topcase

Open Topcase

– with topcase OA

- Turn key in Topcase lock **1** to OPEN position.

- Press Topcase lock forward.

» Topcase handle **2** pops up.

- Press release button behind cover **3** back.

» Topcase lid opens.

- Open Topcase cover.

Close Topcase

– with topcase OA

- Be sure that Topcase handle **2** is folded out.
- Close Topcase cover and press into lock. Ensure that no items are trapped between cover and case.
- Close Topcase handle **2**.
- If necessary, turn key in Topcase lock into Position CLOSE and remove.

Remove Topcase

– with topcase[OA]

- Turn key in Topcase lock **1** to position OPEN.

- Press Topcase lock forward.

» Topcase handle **2** pops up.

- Turn key in Topcase lock to RELEASE position.
- Pull release button **4** back while holding onto Topcase carrying handle.
- Remove Topcase from back of Topcase holder.

Mount Topcase

– with topcase[OA]

- Be sure that the Topcase handle **2** is folded out and that the key in the Topcase lock is in the RELEASE position.
- Insert the Topcase in the Topcase holder.
- Press release lever **4** back while inserting the Topcase in the Topcase holder from the rear.
- Close Topcase handle **2**.
- If necessary, turn key in Topcase lock to the CLOSE position and remove.

Maximum payload and maximum speed

Observe maximum payload and top speed as indicated on label in Topcase.

If you cannot find your combination of motorcycle and topcase on the label, contact your BMW Motorrad Retailer.

The following values apply to the combination described here:

 Maximum speed when riding with a loaded topcase
– with topcase OA
max 81 mph (max 130 km/h)◁

 Payload of Topcase
– with topcase OA
max 11 lbs (max 5 kg)◁

Care

Care products

BMW Motorrad recommends that you use cleaning and care products available at your authorized BMW Motorrad retailer. BMW CareProducts have been materials tested, laboratory tested, and field tested and provide optimum care and protection for the materials used in your motorcycle.

ATTENTION

Use of unsuitable cleaning and care agents

Damage to motorcycle parts

- Do not use any solvents such as nitro thinners, cold cleaners, fuel or similar, and do not use cleaning agents that contain alcohol.◀

Washing your motorcycle

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

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

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

To remove road salt, clean the E-Scooter with cold water immediately after completion of every trip.

WARNING

Damp brake disks and brake pads after washing the motorcycle, after riding through water or in the rain

Poorer braking action, accident hazard

- Brake early until the brake rotors and brake pads are dry.◀

ATTENTION

Increased effect of salt caused by warm water

Corrosion

- Only use cold water to remove road salt.◀

ATTENTION

Damage caused by high water pressure from high-pressure cleaners or steam-jet devices

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

- Do not use high-pressure or steam cleaners.◀

Cleaning sensitive motorcycle parts

Plastics

ATTENTION

Use of unsuitable cleaning agents

Damage to plastic surfaces

- Do not use abrasive cleaners or cleaners containing alcohol or solvents.
- Do not use insect sponges or sponges with a hard surface.◀

Fairings and panels

Clean fairings and panels with water and BMW plastic cleaner.

Plastic windshields and lenses

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

NOTICE

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

Chrome

Especially in the case of road salt, carefully clean chrome parts with plenty of water and BMW auto shampoo. Use chrome polish for additional treatment.

Rubber

Treat rubber components with water or BMW rubber protection coating agent.

ATTENTION

Use of silicone sprays for care of rubber seals

Damage to rubber seals

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

Paint care

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

At the same time, you should remove particularly aggressive materials immediately; otherwise changes in the paint and discoloration can occur. These include oil, grease and brake fluid as well as bird droppings. It is advisable to use BMW Car Polish or BMW Paint Cleaner in this case.

Contamination on the paint finish is particularly easy to see after the motorcycle has been washed. Remove this type of soiling with cleaning naphtha or spirit on a clean cloth or cotton ball. BMW Motorrad recommends using BMW tar remover

for removing tar spots. Then add a protective wax coating to the paint at these locations.

Protective wax coating

BMW Motorrad recommends that you apply BMW Car Wax or another wax containing carnauba or synthetic wax additives to protect the paintwork.
When water fails to form beads on the paint surface this indicates it is time to apply wax.

Removing the E-Scooter from operation

NOTICE

Do not leave the vehicle with a low charge for an extended period of time. Before extended idle periods, consult the charge status indicator to ensure that the high-voltage battery is fully charged.◀

NOTICE

Check the charge level on a regular basis. The high-voltage battery will be damaged if the charge is too low.◀

NOTICE

Do not park vehicle longer than 14 days if the electrical range is less than 7 miles. If leaving idle for up to three months, park the vehicle when it has a full charge.◀

- Cleaning the E-Scooter.
- Start charging procedure (▬ 61).
- Removing 12V battery (▬ 97).
- Spray the brake lever, tilt and side stand mounting with suitable lubricant.
- Protect metal and chrome-plated parts with an acid-free grease (Vaseline).
- Park E-Scooter in a dry room, raising it to relieve the weight from both wheels.

Putting the E-Scooter into operation

- Remove the protective wax coating.
- Cleaning the E-Scooter.
- Inserting 12V battery (▬ 97).
- Observe checklist (▬ 69).

Technical data

Troubleshooting chart

Charging time is longer than expected for the charging procedure:

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

Operational readiness cannot be switched on:

Possible cause	Remedy
Side stand folded out	Side stand folded in
Start without applying brake	Start with brake applied.
12V battery dead	Charge 12V battery (96).

Screw connections

Front wheel	Value	Valid
Clamping screws (quick-release axle) in telescopic forks		
M6 x 30	**Tightening sequence: Tighten the screws 6 times, alternating between one and the other each time**	
	6 lb/ft (8 Nm)	
Brake caliper on fork leg		
M8 x 32 - 10.9	21 lb/ft (28 Nm)	

Rear wheel	Value	Valid
Rear wheel to output shaft		
M10 x 1.25 x 40	**Tightening sequence: Tighten cross-wise**	
	44 lb/ft (60 Nm)	

Status displays for the charging cable (power/charging/temperature/fault) and what they mean

off/off/off/off	There is no power
lights up/off/off/off	E-Scooter connected and ready to charge
lights up/flashes/off/off	E-Scooter is being charged
lights up/flashes/lights up/off	E-Scooter connected, temperature too high, E-Scooter will be charged at a reduced charge current
lights up/off/lights up/off	Temperature critical, E-Scooter will no longer be charged
lights up/off/flashes/off	E-Scooter will no longer be charged, check domestic installation
off/off/off/flashes	A fault has occurred
off/off/off/lights up	Fault in the infrastructure

Drive

Engine number location	Electric motor-top center
Engine type	JA0P07A
Engine design	Electrical machine, permanent magnet synchronous machine with surface magnets, internal rotor
Performance	26 hp (19 kW), continuous power 48 hp (35 kW), short duration
Torque	53 lb/ft (72 Nm), at engine speed: 4650 min^{-1}
Maximum engine speed	max 10100 min^{-1}

Transmission

Transmission design	Planetary gear

Rear-wheel drive

Type of final drive	Motor unit swingarm with belt drive and planetary gear

Frame

Location of the vehicle identification number	Frame at front right on head tube
Location of type plate	Frame at front right on steering head

Chassis and suspension

Type of front suspension	Upside-down telescopic forks
Spring travel, front	4.7 in (120 mm), on wheel
Type of rear suspension	Single arm aluminum alloy casting swingarm with cam over adjustable rear wheel axle
Type of rear suspension	Attached suspension strut with adjustable spring preload
Spring travel, rear	4.5 in (115 mm), on wheel

Brakes

Front wheel	
Type of front brake	Hydraulically actuated two-rotor disk brake with 2-piston floating calipers
Front brake pad material	Sintered metal
Front brake-disk thickness	min 0.18 in (min 4.5 mm), Wear limit
Rear wheel	
Type of rear brake	Hydraulically disk brake with 2-piston floating caliper, Service brake Cable-operated disk brake with 1-piston floating caliper, Parking brake
Rear brake pad material	Organic
Rear brake-disk thickness	min 0.18 in (min 4.5 mm), Wear limit

Wheels and tires

Recommended tire combinations	An overview of the current tire approvals is available from your authorized BMW Motorrad retailer or on the Internet at bmw-motorrad.com.
Speed category of front/rear tires	M, minimum requirement: 81 mph (130 km/h)
Front and rear tired tread depth	min 0.06 in (min 1.6 mm), Wear limit for Germany only Country-specific statutory requirement, Wear limit outside of Germany
Front wheel	
Front wheel design	Aluminum cast wheel
Front-wheel rim size	3.50" x 15"
Front tire designation	120/70 R15
Load index for front tire	At least 56
Permissible front-wheel imbalance	max 0.2 oz (max 5 g)

Rear wheel	
Rear wheel design	Aluminum cast wheel
Rear-wheel rim size	4.50" x 15"
Rear tire designation	160/60 R15
Load index for rear tire	At least 67
Permissible rear-wheel imbalance	max 0.2 oz (max 5 g)
Tire inflation pressure	
Tire pressure, front	36.3 psi (2.5 bar), with tire cold
Tire pressure, rear	36.3 psi (2.5 bar), Single rider, with cold tires 42.1 psi (2.9 bar), Driver with passenger and/or load, with cold tire

Electrical system

Total capacity of the high-voltage battery	8 kWh, 3 module, each 12 cells with: 94 Ah
Battery	
Battery design	Absorbent Glass Mat
Battery voltage	12 V
Battery capacity	8 Ah
Bulbs	
Bulbs for 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 taillight/brake light	LED
Light source for license plate light	W5W / 12 V / 5 W
Fuses	
Fuse 1	20 A, Electric fan relays
Fuse 2	4 A, Storage management, ICM (integrated charging module)
Fuse 3	4 A, Multifunction switch, left

Fuse 4	7.5 A, DWA, ignition, instrument cluster, diagnostic connector, main relay control
Fuse 5	Not in use
Fuse 6	Not in use
Fuse 7	Not in use
Fuse 8	30 A, Basic module
Electrical rating of onboard socket	max 5 A

Dimensions

Motorcycle length	86.2 in (2190 mm), measured over splash guard
Motorcycle height	49.4 in (1255 mm), over windshield, at DIN unladen weight
Motorcycle width	29.5 in (750 mm), over handlebars 37.3 in (947 mm), over mirrors
Rider's seat height	30.1 in (765 mm), without rider, at DIN unladen weight
Rider's inside-leg arc, heel to heel	68.7 in (1745 mm), without rider at unladen weight

Weights

Vehicle curb weight	606 lbs (275 kg), DIN unladen weight without OE
Permissible gross weight	981 lbs (445 kg)
Maximum payload	375 lbs (170 kg)
Permissible front wheel load	max 419 lbs (max 190 kg)
Permissible rear wheel load	max 661 lbs (max 300 kg)
Front wheel load at unladen weight	302 lbs (137 kg)
Rear wheel load at unladen weight	304 lbs (138 kg)

Performance data

Top speed	>75 mph (>120 km/h), electronically regulated
Top speed for reversing aid	Approx. 2 mph (Approx. 3 km/h)
Cruising range	Approx. 93 miles (Approx. 150 km), when used daily (Road drive mode)

Service

Recycling

How is an E-Scooter disposed of?

Please contact the nearest BMW Motorrad retailer licensed as an approved recycling center for end-of-life motorcycles.

BMW Motorrad Service

With its extensive dealer network, BMW Motorrad can provide assistance for you and your E-Scooter across Europe. Authorized BMW Motorrad retailers have the technical information and expertise needed to conduct reliable repairs covering every aspect of your E-Scooter.
You will find the nearest authorized BMW Motorrad retailer to you at our website:
bmw-motorrad.com

WARNING

Improperly performed maintenance and repair work
Risk of accident as a result of damage
- BMW Motorrad recommends having corresponding work on your E-Scooter carried out by a specialized workshop, preferably by an authorized retailerBMW Motorrad partner.◀

Have all repair work confirmed in the "Service" chapter in this manual. Documentation confirming regular repair work is essential for generous treatment of claims submitted after the warranty period has expired (goodwill).

You can obtain information on the contents of the BMW Services from your BMW Motorrad retailer.

BMW Motorrad Mobility Services

The BMW Motorrad Mobility Services furnish you and your new BMW motorcycle with extra security by offering a wide array of assistance services in the event of a breakdown (BMW Roadside Assistance, breakdown assistance, vehicle recovery and retrieval, etc.).
Contact your authorized BMW Motorrad partner for additional information on available mobility-maintenance services.

Maintenance procedures

BMW pre-delivery check

The BMW pre-delivery check is carried out by your authorized BMW Motorrad retailer before it turns the motorcycle over to you.

BMW Running-in Check

 Carrying out the running-in check
311...746 miles (500...1200 km)

BMW Service

BMW Service is carried out once a year. The scope of the services performed may be dependent on the motorcycle owner and the mileage driven. Your BMW Motorrad retailer confirms that the service has been performed and enters the date for the next service.
For riders who drive long distances annually, it may be necessary to come in for service before the entered date. In this case a corresponding maximum odometer reading will also be entered in the confirmation of service. If this odometer reading is reached before the next service date, service must be performed sooner.

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

The required scope of maintenance work for your motorcycle can be found in the following maintenance schedule:

⑤	④	③	②	①	
				x	**500 - 1200 km** 300 - 750 mls
		x			**10 000 km** 6 000 mls
		x			**20 000 km** 12 000 mls
		x			**30 000 km** 18 000 mls
		x			**40 000 km** 24 000 mls
	x	x			**50 000 km** 30 000 mls
		x			**60 000 km** 36 000 mls
		x			**70 000 km** 42 000 mls
		x			**80 000 km** 48 000 mls
		x			**90 000 km** 54 000 mls
	x	x			**100 000 km** 60 000 mls
x*			x		**12 months**
x*					**24 months**

Maintenance schedule

1 BMW running-in check
2 BMW Service Standard Scope
3 Check screws on the swingarm cover
4 Replace belt
5 Change brake fluid in entire system
[a] for the first time after one year, then every two years

Maintenance confirmations

BMW Service standard scope

The repair procedures belonging to the BMW Service standard package are listed below. The actual maintenance work applicable for your vehicle may differ.

- Checking charging state of battery
- Performing the vehicle test using the BMW Motorrad diagnosis system
- Visual check of brake lines, brake hoses and connections
- Check the front/rear brake fluid level
- Checking front brake pads and brake disks for wear
- Checking rear brake pads and brake disk for wear
- Lubricate side stand and check parking brake Bowden cable
- Lubricate the Bowden cable for the parking brake and check the basic setting and holding action of the parking brake
- Checking steering-head bearing
- Checking coolant level
- Checking tire inflation pressure and tread depth
- Checking the lighting and signal system
- Start release function check
- Final inspection and check for road safety
- Set the service due date and remaining distance before next service
- Confirm the BMW service in the vehicle literature

BMW pre-delivery check

performed

on_____

_____

Stamp, signature

BMW Running-in Check

performed

on_____

at km_____

Next service

latest

on_____

or, if reached earlier

at km_____

_____

Stamp, signature

BMW Service
performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Check screw connection of swinging lid (during maintenance)	☐	☐
Replacing belt	☐	☐
Changing brake fluid in entire system	☐	☐

Information

BMW Service
performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Check screw connection of swinging lid (during maintenance)	☐	☐
Replacing belt	☐	☐
Changing brake fluid in entire system	☐	☐

Information

BMW Service
performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Check screw connection of swinging lid (during maintenance)	☐	☐
Replacing belt	☐	☐
Changing brake fluid in entire system	☐	☐

Information

BMW Service
performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Check screw connection of swinging lid (during maintenance)	☐	☐
Replacing belt	☐	☐
Changing brake fluid in entire system	☐	☐

Information

BMW Service
performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Check screw connection of swinging lid (during maintenance)	☐	☐
Replacing belt	☐	☐
Changing brake fluid in entire system	☐	☐

Information

BMW Service
performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Check screw connection of swinging lid (during maintenance)	☐	☐
Replacing belt	☐	☐
Changing brake fluid in entire system	☐	☐

Information

BMW Service
performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Check screw connection of swinging lid (during maintenance)	☐	☐
Replacing belt	☐	☐
Changing brake fluid in entire system	☐	☐

Information

BMW Service
performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Check screw connection of swinging lid (during maintenance)	☐	☐
Replacing belt	☐	☐
Changing brake fluid in entire system	☐	☐

Information

BMW Service
performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Check screw connection of swinging lid (during maintenance)	☐	☐
Replacing belt	☐	☐
Changing brake fluid in entire system	☐	☐

Information

BMW Service
performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Check screw connection of swinging lid (during maintenance)	☐	☐
Replacing belt	☐	☐
Changing brake fluid in entire system	☐	☐

Information

BMW Service
performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

_____
Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Check screw connection of swinging lid (during maintenance)	☐	☐
Replacing belt	☐	☐
Changing brake fluid in entire system	☐	☐

Information

BMW Service
performed

on_____
at km_____

Next service
latest
on_____
or, if reached earlier
at km_____

Stamp, signature

Work performed

	Yes	No
BMW Service	☐	☐
Check screw connection of swinging lid (during maintenance)	☐	☐
Replacing belt	☐	☐
Changing brake fluid in entire system	☐	☐

Information

Service confirmations

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

Work performed	at km	Date

Work performed	at km	Date

Certificate

BMW C evolution Battery Certificate for high-voltage cell module terms and conditions

The selling BMW Motorrad partner grants the purchaser of a new BMW C evolution vehicle the following performance guarantees with respect to high-voltage cell modules in addition to claims for material defects pursuant to the sales terms and conditions for new BMW C evolution vehicles:

1. The BMW C evolution Battery Certificate for the high-voltage cell modules in the new BMW C evolution vehicle shall be valid for the first 50000 kilometers that the new BMW C evolution vehicle is driven and shall end, irrespective of the kilometers driven, no later than five years after the initial delivery or the first registration of the new BMW C evolution vehicle, whichever comes first ("certificate period").

2. The purchaser may request free correction of a material defect in the high-voltage cell modules at any time during the certificate period.

3. If, as a result of a material defect to the high-voltage cell modules, it is necessary during the certificate period to tow the BMW C evolution vehicle, the purchaser shall be reimbursed the cost of towing it to the nearest BMW C evolution service station.

4. For technical reasons, the capacity of a lithium ion high-voltage battery decreases over the course of its useful life (natural wear). If a capacity measurement conducted at a BMW Motorrad partner during the certificate period reveals that the net battery capacity is less than 70% of the original value at delivery of the new BMW C evolution vehicle, the share below 70% shall constitute a disproportionate loss of capacity. This disproportionate loss of capacity shall be corrected for the purchaser at no charge.

5. The purchaser may assert claims for guarantees of performance arising from this BMW C evolution Battery Certificate with the selling BMW Motorrad partner or with any other BMW Motorrad partner in C evolution sales markets*.

6. The guarantees of performance arising from the BMW C evolution Battery Certificate require that maintenance be carried out

at the intervals specified by the manufacturer and that inspections and any repairs, if necessary, be conducted as part of the maintenance performed on the high-voltage cell modules. The guarantees of performance shall not apply for material defects to the high-voltage cell modules or a disproportionate loss of capacity that are the result of accident damage or that occurred because

- the BMW C evolution vehicle was operated under conditions for which it was not certified (e.g., in a country other than the initial country of delivery with different certification conditions), or
- the BMW C evolution vehicle was handled improperly or overused, e.g., in a motor sport competition, or
- parts were added to the BMW C evolution vehicle, the use of which was not approved by the manufacturer, or the BMW C evolution vehicle or vehicle parts (e.g., software) were modified in a manner that was not approved by the manufacturer, or
- the regulations for the operation, maintenance and care of the BMW C evolution vehicle (in particular, in accordance with the Rider's Manual) have not been followed, or
- the high-voltage battery has been opened or removed from the BMW C evolution vehicle.

7. This BMW C evolution Battery Certificate is a supplemental element of the sales terms and conditions for new BMW C evolution vehicles. Guarantees of performance and claims in accordance with the sales terms and conditions for new BMW C evolution vehicles shall remain unaffected by the guarantees of performance arising from this BMW C evolution Battery Certificate.

8. If ownership of the BMW C evolution changes hands, the guarantees of performance arising from the BMW C evolution Battery Certificate shall remain unaffected.

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

The descriptions and illustrations in this manual may vary from your own motorcycle's actual equipment, depending upon its equipment level and accessories as well as your specific national version. No claims stemming from these differences can be recognized.
Dimensions, weights, fuel consumption and performance data are quoted to the customary tolerances.
The right to modify designs, equipment and accessories is reserved.
Errors and omissions excepted.

Original Rider's Manual, printed in Germany.

Important information for the quick vehicle check:

Charging time	
Charging time of the high-voltage battery with standard charging cable	Approx. 7.8 h, 80% charge during charge rate: 12 A
Charging time of the high-voltage battery with Mode3 charging cable	Approx. 3.5 h, 80% charge during charge rate: 16 A
Tire inflation pressure	
Tire pressure, front	36.3 psi (2.5 bar), with tire cold
Tire pressure, rear	36.3 psi (2.5 bar), Single rider, with cold tires 42.1 psi (2.9 bar), Driver with passenger and/or load, with cold tire

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

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