E-TOURING Manual

Brose E-bike system

Important!

Read pages 2 to 25 before using the bike

Notes on this System Manual

Please pay particular attention to the following symbols:

Danger 	This symbol indicates a possible danger to your life and health if the relevant instructions are not followed or if appropriate precautions have not been taken.
Caution 	This symbol warns you of misconduct that may result in damage to property and the environment.
Attention 	This symbol indicates information about the handling of the product or a respective part of the operating instructions that should be given special attention.

Table of Contents

a) Battery

Safety instructions

Read all safety information and instructions carefully.
Failure to follow the information and instructions may result in fire, electric shock and/or serious injury.
The ingredients used in lithium-ion batteries are flammable under certain conditions.
Therefore, follow the instructions in this manual carefully.
Keep this manual and its safety instructions in a safe place for future reference.

- Remove the Simplo Snake battery AST-09 (hereafter referred to as battery) from the frame before starting any work (repairs, inspections, etc.) on the e-bike. The same applies if you transport the e-bike by car or plane. Unintentional activation of the e-bike system may cause injuries.

- Do not open the battery. This may cause a short circuit. In addition, any warranty or guarantee claim is void.

- Protect the battery from heat (including permanent sunlight), fire and immersion in water. Do not operate the battery near hot or flammable objects due to the danger of explosion.

- When not in use, keep the battery away from any metallic parts that could cause bypassing of the contacts. This may cause burns or fire. Short-circuit damage caused by foreign objects will void any warranty or right of recourse.

- Avoid strong mechanical loads on the battery. These can damage the cells and release flammable substances.

- Do not store the battery near flammable materials. Charge the battery only above 0° Celsius and in dry condition in a fire-safe place. There is a risk of fire due to the heat generated during charging.

- The battery must not be charged when unattended.

- If damaged, liquids may leak from the battery. Avoid any contact. If contact has nevertheless occurred, rinse quickly with lukewarm water. In case of eye contact, seek medical attention immediately. Leaking battery fluid can cause skin irritation and burns.

- Batteries must be protected from mechanical shocks, as there is a risk of damage to the battery.

- Vapors may escape if the battery is damaged or used improperly. Immediate supply of fresh air is required. If you have any discomfort, contact a doctor as the vapors can irritate the respiratory tract.

- Only charge the battery with the original charger. When using an external charger, the risk of fire cannot be excluded.

- Use the battery only with the original Brose e-bike drive system. This is the only way to protect the battery from dangerous overloading.

- Use only original Simplo Snake batteries approved by the manufacturer for your e-bike. Other batteries may cause injury or fire. No liability or warranty is accepted for the use of other batteries.

- Keep the battery away from children.

- Read and follow the safety instructions and notes mentioned in all operating manuals of the e-bike system and the operating manual of your e-bike.

Our product safety and the safety of our customers is our top priority.
We exclusively use lithium-ion batteries that are developed and manufactured according to the current state of the art. All safety standards are met or exceeded.
The high-energy content of a charged battery can lead to a fire in very rare cases and under unfavorable circumstances in the event of a defect (possibly not visible from the outside).

Technical Data of Battery

Lithium-ion battery	AST-09
Nominal voltage (V=)	36
Nominal capacity (Ah)	13,9 AH
Energy (Wh)	504
Operating temperature (°C)	-5...+40
Storage temperature (°C)	-10...+60
Permissible charging temp. (°C)	0...+40
Weight approx.	3 kg
Protection class	IP51

Care & Handling

The battery is equipped with 3 LEDs. Each LED stands for approx. 33% battery charge (see page 7).

In addition, when installed, the charge level is shown in the display on the handlebar.
Please read the operating instructions of the display manufacturer.
After charging, disconnect the battery from the charger and the charger from the mains.

Charging of Battery

Only use the original charger or an identical original charger.

Only use the original charger or an identical original charger.

Only these are matched to the lithium-ion battery used.
Note: The battery is delivered only partially pre-charged. In order to ensure full capacity and functionality, fully charge the battery before the first ride.
Lithium-ion batteries can be charged at any state of charge. Any interruptions will not damage the battery.
Due to the integrated temperature monitoring, charging of the battery is only permitted between 0°C and 40°C.

Assembly

- Only place the battery on clean surfaces. The charging contacts should not be soiled by sand or earth.

Check the battery before using it for the first time.

Check the battery before charging or using it for the first time.

To do this, press the On/Off button to activate the battery. If no LED of the charge status indicator lights up, the battery may be defective.

If not all LEDs of the charge level indicator are lit, charge the battery fully before using it for the first time.

- **Do not charge a damaged battery and do not use it. Please contact your authorized bicycle dealer.**

Transport

If you transport your bike outside your vehicle, e.g. on a bicycle rack, remove the battery from the bike to avoid damage.

The batteries are subject to the requirements of the dangerous goods law. The private user can transport intact batteries on the road without any restrictions.

In the case of transport by commercial users or transport by third parties (e.g. freight forwarders), the special regulations on marking and packaging must be observed (ADR). If necessary, consult a dangerous goods expert when shipping a package.

Only send batteries with undamaged housings. Open contacts must be masked and the battery must be packed so that it cannot move in the packaging.

Inform the shipping service provider that the goods in question are hazardous. Any other national regulations must be observed.

If you have any questions regarding transport, please contact your authorized bicycle dealer.

Storage of Battery

If you do not use the battery for a long time (> 3 months), charge it to about 30-60% before.

After 6 months, the charge level should be checked and adjusted if necessary.

Note: If the battery is stored empty for a longer period of time, it may be damaged and the battery capacity reduced despite low self-discharge.

It is not recommended to leave the battery permanently connected to the charger.

Storage Conditions

The battery should be stored in a well-ventilated and dry place. Protect it from moisture and water.

In case of unfavorable weather conditions, it is recommended to dismantle the battery and store it in closed rooms until the next journey.

We recommend storing your battery between 0°C and 20°C.

Avoid temperatures below -10°C and above 60°C. An optimal storage temperature is 20°C.

Make sure that the maximum storage temperature is not exceeded. Therefore, do not leave the battery in the car and do not store it in direct sunlight.

We do not recommend storing the battery in a bicycle.

Charge Indicator

The battery is equipped with 3 LEDs. Each LED stands for approx. 33% battery charge.

Furthermore, when installed, the charge level is shown in the display on the handlebar.

Please read the operating instructions of the display manufacturer.

After charging, disconnect the battery from the charger and the charger from the mains.

Service & Maintenance

The battery must not be immersed in water or cleaned with a water jet.

Carefully clean the battery with a slightly damp and soft cloth.
Caution: Do not touch the contacts with a damp cloth.

Clean the plug poles occasionally and grease them lightly.

Due to the magnetic closure, the poles may be contaminated by metal particles. Check and clean them regularly.

If the battery is no longer in working order, please contact your authorized dealer.

Disposal

Batteries, accessories and packaging must be recycled in an environmentally friendly manner. Tape the open poles before disposal.

Batteries must not be disposed of with household waste!

Do not touch damaged batteries with bare hands as this may cause skin irritation.

Keep a defective battery in a safe place outdoors. Contact your dealer for assisting you in disposing of the battery properly.

Customer Service & Support

If you have technical questions about your batteries, please contact your authorized bicycle dealer.

Take a note of the manufacturer and your key number.

If you lose your key, contact your authorized dealer. Please indicate the key manufacturer and key number.

According to the European directive 2012/19/EU, electrical appliances that can no longer be used, and according to the European directive 2006/66/EC, defective or used batteries must be collected separately and reused in an environmentally friendly manner. Return batteries that can no longer be used to an authorized bicycle dealer.

Subject to change without notice.

Simplo Snake Battery, Typ AST-09

Step 1

Insert the key into the lock on the left side and turn it counterclockwise to loosen the cover on the right side.
Hold the cover firmly with your other hand to prevent it from falling out.

Step 2

Remove the cover on the right side to access the battery.

Step 3

Use the lever to pull the upper battery cell a little outwards.

Step 4

Pull the battery cell by cell up and out of the opening.

Step 5

To replace the battery, proceed in exactly the opposite order.
The battery is automatically connected to the pedelec port by a magnet when fully inserted.

Step 6

To close, insert the cover with the lower lug and press the upper side against the frame.
Turn the key clockwise and to the end and remove the key.

b) Marquardt Comfort Display

Control unit: Marquardt Comfort

1) Overview of the Comfort control unit

Switch the pedelec on and off at the Comfort control unit. Use the two keys and the joystick to activate and control support from the electric motor or switch on the headlights.

The Comfort control unit‘s display shows the current driving speed. You can also see which support level is active, how long the power for the support motor will last, the charge level of the battery and whether the light is switched on. You can also view the trip kilometers, average speed and maximum speed for the current tour. The Comfort control unit also displays the total mileage of the pedelec and the maximum speed over the entire distance.

2) Mounting the Comfort control unit

Check the fastening screws at regular intervals. Shocks, heat and cold may cause the screws to loosen. Tighten all screws to the required torque.

The Comfort control unit can be mounted on the left or right handlebar side. The protruding page faces inwards. It is not above the handlebar grips. Position the control unit close to the handle. All keys must be easy to operate with your thumb.

1. Unscrew the hexagon socket screw with a hexagon socket SW 2.5 on the bracket of the control unit. Open the mounting bracket.

2. Position the control unit on the left-hand side of the handlebar.

3. Position the connecting cable in the control unit bracket. It must lie in the guide troughs on the inside of the bracket and be guided through a recess in the bracket to the con-nection.

4. Close the bracket. Pay attention to the connecting cable. The connecting cable must not be crushed by the bracket.

5. Turn the hexagon socket screws on the bracket back in with a hexagon socket SW 2.5. Do not tighten the screws yet.
Check the position of the Comfort control unit. Are all keys accessible with the thumb? Is the advertisement clearly visible?

6. Tighten the hexagon socket screw with the hexagon socket (min. torque 0.3 Nm, max. torque 0.5 Nm).

7. Connect the purple plug of the control unit to the socket of the same color on the wiring harness. Ensure that the cut-outs in the plug and socket meet so as not to damage the connection.

The Comfort control unit is installed.

3) Operating and display elements

Use the keys on the Comfort control unit to regulate the functions of the pedelec system ergo-nomically. The hand can remain on the handlebar grip, while the thumb can operate the keys on the Comfort control unit. The displays on the control unit display provide information about the driving situation and the support aids.

3.1) Operating keys

The keys on the Comfort control unit are used to control the functions of the pedelec system.

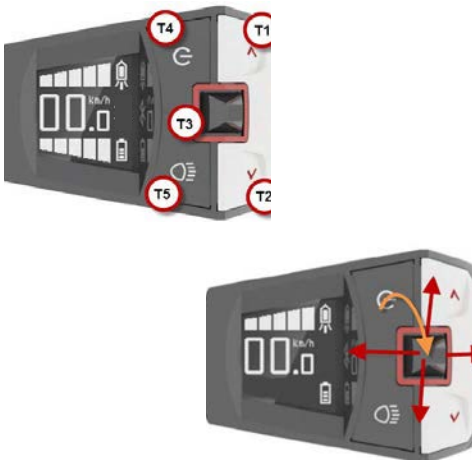


Abb. 2 Keys and joystick of the Comfort control unit

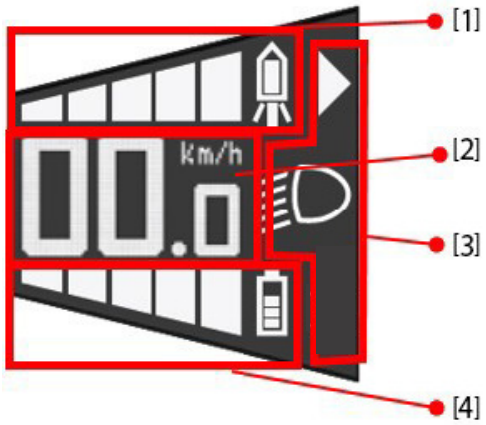
Key	Function
T1	Increase support level Hold > 3s: Switch on walk assist until key is no longer held.
T2	Reduce support level
T3	Joystick:
▲	One page up. Switch to editing mode. One entry higher in editing mode.
◄	Move to the next page to the left. In editing mode, exit the mode and confirm the value.
■	In edit mode, edit the highlighted value.
►	Switch to the next page to the right. In editing mode, exit the mode and confirm the value.
▼	Move one page down. Switch to editing mode. One entry higher in editing mode.
T4	Switch the Comfort control unit on and off.
T5	Short press: Switch on the light. Long press: Switch off the light. In automatic mode: The light is switched on or off depending on the ambient light. The light can always be switched on or off manually using this switch.

3.2) Displays of the Comfort control unit

The displays of the Comfort control unit offer different information on different pages. The joy-stick moves sideways to switch between the pages. Some of the pages offer additional pages that are controlled by vertical movements of the joystick.

The main page provides the following information:

1. Indication of the current support.
2. Speed
3. Status display for
triangle symbol: Sliding aid active.
Lighting: Symbols show the status.
4. Battery charge status.



The other pages are designed according to the following pattern:

1. Symbol for the page.
2. Horizontal navigation position.
3. Page content.
4. Vertical navigation position: Refers to further pages and shows the current position.

Driver Performance

Fig. 3 Comfort Page Driver performance
Shows the current power output by the user to drive the pedelec in watts. This value is transmitted by the motor to the control unit.

Automatic light (setting menu)

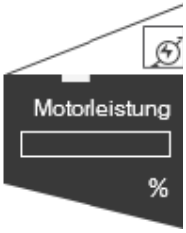


Fig. 4 Comfort Page Automatic light
Activate the automatic mode for the headlight here. The light is then switched on or off depend-ing on the ambient brightness. If the automatic mode is switched on, the headlight symbol is displayed with an „A“ on the main page. The light can be switched on or off at any time using the T5 key.

Remaining range

Fig. 5 Comfort Page Remaining range
Shows the remaining range of the pedelc with as-sistance.

Tour Distance

Fig. 6 Comfort Page Tour Distance
Displays the distance travelled since the value was last reset.
This page contains additional pages.

Tour Distance / Average Speed

Fig. 7 Comfort Page Tour average speed
- Medium speed.

Displays the average speed of the current route.

Tour Distance / Maximum speed

Fig. 8 Comfort Page Tour-Max. Speed
- Maximum speed.

Displays the highest speed of the current route.

Tour Distance / Reset

Fig. 9 Comfort Page Tour-Reset
- Reset - Move the joystick (T3) down to activate the RESET function (change the color of the menu item from black to white).
- By briefly pressing the joystick, the tour va lues are reset to „0“.
  The values for the distance, average speed and maximum speed of the current tour are deleted and set to „0“.

Total Distance

Fig. 10 Comfort Page Total Distance
Displays the total distance covered by the pedelec. Another page belongs to this display.

Total Distance / maximum speed

Fig. 11 Comfort Page Max. Speed.
Shows the highest speed on the total distance covered by the pedelec.

4) Operating

4.1) Switching on and off

Switching on the Comfort control unit

- Press the T4 key for less than 2 seconds.

➔ The display shows the home screen, then changes to the Main screen.

Switching off the Comfort control unit

- Press and hold (>2s) the T4 key.

➔ The display goes out.

4.2) Operation

4.2.1) Headlight

Press the T5 key to switch the light on or off. If the automatic light function is activated, the light is switched on or off according to the ambient light.

The main page shows the current status of the running light with the following symbols:

Symbol	Headlight
-	Headlight off
	Headlight on
	Automatic mode on - Headlight off
	Automatic mode Headlight on

Switch on the headlight

- Briefly press the T5 key.

➔ The headlight is switched on.
➔ The headlight symbol shows the normal light status.

Switching of the headlight

- Press and hold (>2 sec) the T5 key.

➔ The headlight is switched off.
➔ The headlight symbol shows the current status.

Automatic mode Switching the headlights on and off
You activate the automatic mode for the headlight on the „Automatic light“ page.
The automatic mode switches the headlight on or off according to the ambient light.
In automatic mode, you can switch the headlight on or off at any time with the T5 key.

4.2.2) Setting support

The electric motor of your pedelec supports your pedaling power. Several support levels are available. You can also drive without motor assistance.

- You set the support levels on the Comfort control unit (T4 / T2).
- The current support level indicates Comfort with a scale.
- The selected level is immediately effective.

You can see the active level from the bright segments of the support display on the main page of the Comfort control unit.

Level	Description
None	Normal cycling conditions. Motor inactive.
ECO	Efficient support for maximum battery range
TOUR	Consistent support for long distances with large battery range
SPORT	Powerful support for sporty driving, on mountainous roads and in city traffic with normal battery range
BOOST	Powerful support for sporty driving on steep and mountainous tracks with low battery range

Enable support

- The display shows no support level.

1. Press the T4 key on the Comfort control unit.

➔ The electric motor supports the drive.

➔ The first segment is shown in the support display.

Increasing support

1. Press the T4 key. You switch to the next higher level.

➔ The electric motor provides more support to the drive.

➔ Further segments are displayed in the support display.

Reducing support

1. Press the T2 key.

➔ The electric motor is less supportive.

➔ In the support display, the number of segments displayed decreases.

Driving without assistance

1. Press the T2 key until no segment of the support display is visible.

➔ You are driving without motor support.

4.2.3) Walk assist

Walk assist is available for starting or pushing the wheel. The drive of the pedelec supports the movement of the wheel. The sliding aid can be activated up to a speed of < 6 km/h.
You use the walk assist when pushing the bike, when starting off or when assisted starting on a hill. If you push the bike, you move beside the bike. Use the walk assist as a starting aid when sitting on the bike.
In both cases, when activated the walk assist moves the bike.

WARNING!

The walk assist moves the bike.
Hold the handlebar grips and be ready to apply the brakes.
When sitting on the bike, do not press the pedals. Your power and the walk assist could accelerate the pedelec very strongly. The second pedal also moves and can injure you when you climb up!
Do not use the walk assist for slow driving.

Switch on the walk assist:

- Press and hold the T1 key.

➔ The walk assist is active and moves the wheel

➔ The triangle symbol for the walk assist is displayed on the main page of the display.

Switch off the walk assist:

- Release the T1 key.

➔ The walk assist is switched off.

➔ The triangle symbol is no longer displayed on the main page of the display.

4.2.4) USB port

The Comfort control unit has a Micro USB AB plug. The USB plug is located in the tip of the device above the handlebar and is protected against dirt and moisture by a rubber cap. A connected USB device is supplied with max. 1 A charging current.

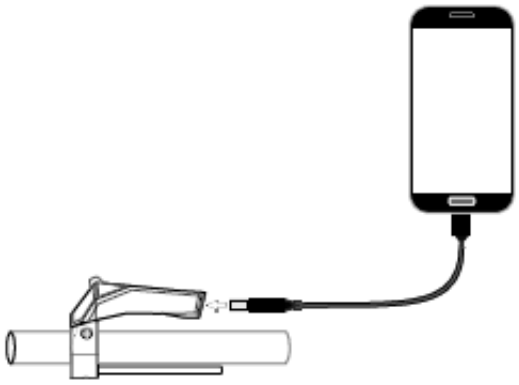


Abb. 13 USB-Port

NOTE!
No liability is accepted for damage to the mobile phone caused by the connection to the Comfort control unit.

Connecting the USB Device

1. Open the rubber protection cap of the USB port
2. Connect the USB device to the USB port - direct connection or with a suitable USB cable. A so-called OTG USB cable must be used to charge a device. The direction of connection must be observed.
➔ The new connection is displayed on the connected device.

Removing the USB device

1. Disconnect the USB device or the connecting cable from the USB port on the Comfort control unit.
2. Close the USB port with the rubber cap.

NOTE!
Please observe the instructions for disconnecting the USB connection in the operating manual of the connected device.

The Comfort control unit is only protected against water and dirt when the rubber protection is closed.

To prevent damage to the USB port of the control unit, it is recommended that the USB cable is also securely attached to the handlebars.

5) Error Codes

The Comfort control unit displays error codes for the entire pedelec system. The error codes represent errors detected by the system. The following table shows the meaning of the error codes. Please observe the recommended reaction to the error codes.

WARNING!
Note the error codes!
Error codes can indicate serious errors in the pedelec system. These errors prevent safe operation of the pedelec. Accidents with personal injury and damage to the pedelec may occur.
Stop using the pedelec. Inform yourself about the meaning of the error code and observe the solution approach.
If the meaning of the error code is unclear, stop the drive and turn off the wheel. Contact the manufacturer, the dealer or your garage for information on the next steps

Error Code	Description	Solution
10	The battery voltage is too low	Charge the battery pack with the battery charger.
11	The battery voltage is too high	Switch the system completely off and on again using the T4 key on the control unit. If the problem persists, contact your e-bike dealer.
12	The battery is almost completely discharged	Charge the battery pack with the battery charger.
20	Electrical measurements are erroneous	Switch the system completely off and on again using the LED key (28) on the battery pack (26). If the problem persists, contact your e-bike dealer.
21	Thermocouple defective	
24	The internal voltage is beyond the operating range	Charge the battery pack with the battery charger.
25	Error in the motor current measurement	Switch the system completely off and on again using the T4 key on the control unit. If the problem persists, contact your e-bike dealer.
26	A software reset has been performed	
40/41	Detection of overcurrent in the motor	Reduce the load on the motor by pedaling less or reducing the support level.
42	Fault in the engine rotation	Switch the system completely off and on again using the T4 key on the control unit. If the problem persists, contact your e-bike dealer.
43	Short-circuit in the motor	
44	Overheating of the motor	Reduce the load on the motor by pedaling less or reducing the support level.
45	The software has corrected an error when turning the motor	Switch the system completely off and on again using the T4 key on the control unit. If the problem persists, contact your e-bike dealer.
46	No motor movement detected although a current > 2 A was measured	
60	Interruption of data exchange on the CAN-BUS	Check the cables and plug connections of all components of the e-Bike system.
70	Force on the pedal is not within the valid range	Switch the system completely off and on again using the T4 key on the control unit. If the problem persists, contact your e-bike dealer.
71	Pedal rotation is not detected	
72	Force on the pedal is not detected	
73	Connection to pedal force sensor is faulty	
74	Errors were detected in the data	

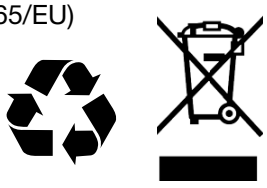
Error Code	Description	Solution
80	Erroneous motor parameter	Switch the system completely off and on again using the T4 key on the control unit. If the problem persists, contact your e-bike dealer.
81	Speed signal is not detected	Make sure that the spoke magnet is correctly positioned opposite the speed sensor.
82	The program has been manipulated	Switch the system completely off and on again using the T4 key on the control unit. If the problem persists, contact your e-bike dealer.
83	Error in the program flow	
84	Erroneous motor parameter	

6) Technical Data

Comfort control unit	
Length x width x height	72.8 x 50.2 x 44.6 mm
Operating temperature	-10°C to 65°C
Storage temperature	-20°C to 85°C
Protection class	IP65 (HMI) dustproof, water spray proof
ESD model	Human Body Model (HBM)
USB interface	Micro USB Standard 2.0 Full Speed
USB charging function	USB Battery Charging Standard BC1.2 Max. 1,0 A
CAN Interface ISO 11898-5	High-speed CAN

7) Disposal

In accordance with the European Directive 2012/19/EU, electrical appli-ances that are no longer serviceable must be collected separately, and in accordance with the European Directive 2006/66/EC, defective or used batteries must be collected separately and reused in an environmentally friendly manner.
Old machines, replacement parts and packaging are made of recyclable materials. The owner is obliged to dispose of these properly and in an environmentally friendly manner in accordance with the statutory regula-tions.
All plastic injection molded parts are marked with a recycling symbol.
RoHS Directive (2011/65/EU)



c) Drive Unit

Safety Information

- Observe all safety information and instructions, both in this manual and in all other manuals enclosed with the e-bike.

Failure to follow the safety instructions may result in electric shock, fire and/or serious injury.

- Keep these operating instructions in a safe place for future reference.

- Never open the drive unit. This is maintenance-free and may only be repaired by qualified personnel and using original spare parts.

This ensures the safety of the drive unit. Unauthorized opening of the drive unit will void the warranty.

- All components belonging to the e-bike system as well as components which are mounted on the drive unit (e.g. chainring, chainring holder, pedals) may only be exchanged for components approved by the bicycle manufacturer.

This protects the drive unit from damage (e.g. due to overload).

If the e-bike system is accidentally activated, there is a risk of injury.

- The pushing aid may only be used when actually pushing the e-bike.

If the wheels of the e-bike do not have contact with the ground when using the pushing aid, there is a risk of injury.

- Do not make any changes to your e-bike system. Do not attempt to increase the performance of your e-bike system.

Otherwise, you will reduce the service life of the components and risk damage to the e-bike system and the e-bike. In addition, any manipulation of the e-bike system will void any warranty and guarantee claims on your e-bike. Improper handling of the system will also endanger your own safety and that of other road users.
By making unauthorized changes to the e-bike system, you risk high personal liability costs or even criminal prosecution in the event of accidents caused by manipulation.

- Observe all national regulations for the registration and use of e-bikes.

- Caution: Touching the motor housing may cause burns.

Intended Use

The drive unit is intended exclusively for driving your e-bike and must not be used for other purposes.

Operation

For information on operating your e-bike with the Brose drive, please refer to the operating instructions of the control unit.

Driving Information and Tips

When does the e-bike drive work?

The Brose e-bike system enables the cyclist to be supported by an electric motor in a Pedal Electric Cycle (PEDELEC). The support depends on the force applied to the pedals by the cyclist. Support from the e-bike drive is therefore only provided when the cyclist pedals. This applies regardless of the support level.

The e-bike drive switches itself off automatically at speeds above 25/45 km/h. If the speed falls below 25/45 km/h, the support automatically resumes.

One exception is the push aid function, which allows the e-bike to be pushed more comfortably at low speeds without pedaling. When using the pushing aid, the pedals can also rotate.

You can ride the e-bike like a normal bicycle at any time without support.

Familiarization

Take some time to get used to the e-bike before you use it in normal traffic. Test the different levels of support until you feel confident using the product. Before longer rides, gain experience of how different parameters and environmental conditions affect the range of your e-bike.

Engine Set-Ups

The Brose e-bike system supports various engine set-ups. Together with the bicycle manufacturers, these are individually adjusted for each bicycle model. Detailed information on the motor set-up of your e-bike can be obtained from your bicycle manufacturer and your bicycle dealer.

Influences on the Range

The distance range is influenced by many factors, such as:

- Support level

The higher the support level is selected with otherwise the same conditions, the lower the range is.

- Shifting behavior
- Type of tires
- Tire pressure
- Age, maintenance and charge level of the battery pack
- Route profile (gradients) and route condition (road surface)
- Weather conditions (e.g. headwind, ambient temperature etc.)
- Weight of the e-bike
- Payload

Maintenance & Cleaning

Avoid contact of the drive unit with aggressive cleaning products and care products, especially penetrating oils and brake cleaners.
The drive unit must neither be immersed in water nor cleaned with a high-pressure washer.

For service or repairs to the e-bike, please contact an authorized bicycle dealer.

Service

The drive unit must be inspected by a Brose-certified service center after a service life of 15,000 km. Information on the service center responsible can be obtained from your bicycle dealer.

Disposal

Drive unit, display unit and control unit, battery pack, speed sensor, accessories and packaging are to be recycled in an environmentally friendly manner. Do not dispose of e-bikes and their components in household waste!

For EU countries only:

According to the European directive 2012/19/EU, electrical appliances that are no longer fit for use must be collected separately, and according to the European directive 2006/66/EC, defective or used batteries must be collected separately and reused in an environmentally sound manner.

Technical Data

Brose drive unit 25 km/h	
Brose material number	C16162/C91143/C97272
Dimensions	213x150x128 mm
Weight	3,400g
Nominal voltage	36 V
Protection class	IP56
Torque max.	90nm
Continuous rated power	250 W
Pushing aid	up to 6 km/h

Brose drive unit 45 km/h	
Brose material number	C79232/C97292
Dimensions	213x150x128 mm
Weight	3.400g
Nominal voltage	36 V
Protection class	IP56
Torque max.	90nm
Continuous rated power	250 W
Starting aid	to 20 km/h
Pushing aid	to 6 km/h

Lighting for drive version C16162 / C9143 / C79232 / C97292	
Nominal voltage	6 V
Maximum rated power* - Front light - Rear light	 6,6 W 0,6 W

Lighting for drive version C97272	
Nominal voltage	6 V
Maximum rated power* - Front light - Rear light	 14,0 W 0,6 W

* Please check by means of the item number on the drive unit which drive version has been installed in your e-bike.

General Brose drive maintenance instructions:

General Brose drive maintenance instructions: Your Brose motor is equipped with a toothed belt. Toothed belts are subject to a certain degree of wear and tear. It is therefore important that you have the toothed belt replaced by a certified specialist dealer after 10,000 km of driving. Otherwise failures and injuries may occur.

d) Warranty

General warranty and guarantee conditions

We guarantee that the system-integrated components are free of defects within the warranty period. If, exceptionally, a defect should occur in the components during this time, it will be repaired free of charge.

Free warranty repair will only be provided upon presentation of the original invoice; purchase receipt issued and stamped by the Seller, provided that the invoice contains the name of the Buyer, the name and address of the Seller, the model designation and, if applicable, the serial number of the purchased product and the date of purchase. We reserve the right to refuse warranty repair if this information is incomplete or has been subsequently removed or modified. We also reserve the right to replace the defective product with another equivalent product of the same or better quality as the defective product, instead of repairing the defective product.

1. Warranty period
The warranty period is two years from the date of purchase as evidenced by the documents mentioned above.

2. Use of the guarantee
The repair takes place in service points authorized by us. Any costs incurred for the safe transport of the product to the service point and back shall be borne by the purchaser.

3. Area of application
The scope refers to Great Britain and all countries of the European Union.

4. Warranty exclusions
Our warranty does not cover:

- Regular inspections, maintenance and repair or replacement for parts after normal wear and tear
- The replacement, repair or delivery of consumables
- Troubleshooting of any type of software
- parts subject to wear and tear, consumables and accessories used with this product
- The repair of defects caused by changes made to the product without our permission.
- adaptations of the products to technical and/or safety norms or standards which are necessary because the product does not comply with the safety norms or standards in the country of useoutside the country of purchase or because of changes to thesesafety norms or standards after purchase
- Compensation for damage caused because the product does not comply with the technical standards and norms given in the country of use outside the country of purchase.

The warranty is not transferable, and is void if the product has been resold privately in the meantime (warranty applies only to first buyers), or if errors or damage have been caused by:

- Improper handling, excessive use or handling or operation of theproduct in a manner inconsistent with the instructions contained in the operating instructions or manuals for the operating personnel and ; or relevant user documents, including but not limited to improper storage, falls or severe vibrations;
- Corrosion, dirt, water or sand;
- Repairs or modifications carried out by an unauthorised specialist workshop;
- Use of spare parts that are not suitable for the product.
- Connection of the product to equipment not intended for this connection
- Insufficient packaging when shipping the product to an authorized service center;
- Accidents, natural disasters and all other causes that we cannot control or foresee, including, but not limited to lightning, water, fire, sedition and inadequate ventilation and air conditioning.

5. Other
The repair may be delayed outside the original country of purchase if the repair product is not yet sold there or is sold in a country-specific version and as a result certain spare parts for the product are not available in that country.
We assume no liability for further claims. This shall not apply where liability is mandatory, e. g. in cases of intent, gross negligence, injury to life, limb or health, or breach of fundamental contractualobligations.
If the product is returned for warranty purposes, the product must be carefully packed, insured and accompanied by proof of purchase and a descrip-

tion of the defect.
This guarantee does not affect the respective country-specific legal claims to which the buyer is entitled against his seller in the event of defects, nor the rights to which the buyer is entitled in his country from product liability against the manufacturer or other mandatory legal norms. In the absence of national legislation to this effect, the buyer may rely solely on this warranty. Furthermore, neither we nor any other organization involved shall be liable for any indirect or consequential damages arising out of any failure to comply with any express or implied warranty of this product.

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