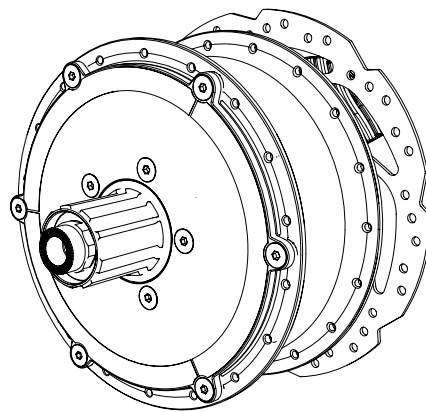


HESC ATS

E-Bike-Components

User manual

500W Rear wheel motor



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Safety information

WARNING

There is an increased risk of injury – even fatal – if you do not follow instructions.

Managing the battery

- ▶ Use only batteries and chargers from SR Suntour with your bike. Use of other battery packs can cause injury and involve a risk of fire. If you use other battery packs, SR Suntour will assume no liability or warranties.
- ▶ Do not throw the battery pack into a fire.
- ▶ The battery must not be exposed to direct sunlight, or charged or stored in the vicinity of high temperatures.
- ▶ Do not use the battery for any other purpose.
- ▶ Avoid contact with metal objects (paper clips, coins, keys, nails, screws, or other small metal objects, as this may cause a short-circuit. Shorts caused in this way will invalidate any warranty claims.
- ▶ Do not open the battery pack. This could cause a short circuit. Opening of the battery package will invalidate any warranty claims.
- ▶ Do not connect, or disconnect the battery pack / charger with wet hands.
- ▶ Keep the battery / charger out of reach of children/animals.

WARNING

There is a risk of serious injury – even fatal – if you do not follow instructions.

How safe riding is ensured

- ▶ While riding, do not focus your attention too much on the screen, as this can lead to accidents.
- ▶ Ensure that the wheels are securely attached to the bike before you begin your trip. If the wheels are not securely attached, the bike may fall over, causing severe damage.
- ▶ When riding a power-assisted bike, be sure that you are completely familiar with the starting characteristics of the bike before riding on multilane roads and footpaths. If the bike suddenly switches on, accidents can happen.
- ▶ If applicable, check that the bike lights are working before you ride at night.

How safe riding is ensured

- ▶ Remove the battery pack from the eBike before you start working on it (e.g., assembly work, maintenance, working on the chain, etc.), before transporting it by car or plane, or before storing it. There is a risk of injury in case of accidental activation of the eBike system.
- ▶ Be sure to remove the battery before you perform wiring or installation work on the bike. Otherwise there is a danger of electric shock.
- ▶ When you install this product, be sure to follow the instructions given in the user manual. We also recommend that you use only genuine SR SUNTOUR parts. If nuts and bolts are left loose or the product is damaged, the bike may fall over suddenly and cause serious injury.
- ▶ After you have carefully read the user manual, store it in a safe place for later reference.
- ▶ Ensure that unused connections are provided with caps.
- ▶ Contact a retailer for installation and adjustment of the product.
- ▶ To allow riding in wet weather, the product is designed to be completely waterproof. Nevertheless, do not expose the product intentionally to water.
- ▶ Do not expose the bike to high-pressure cleaning. If water should penetrate into one of the components, operating problems or rust may result.

Managing the battery

- ▶ Do not subject the battery or the charger to physical shocks, e.g., by dropping. Rinse in the event of accidental contact with water. If fluid gets in your eyes, seek medical advice. Fluid that leaks from the battery pack may cause skin irritation or burns.
- ▶ If you detect a strange odour or smoke, pull the plug.
- ▶ Ensure that the power plug is fully inserted into the wall outlet.
- ▶ Pull on the plug instead of the cable to unplug the power cord from a wall outlet.
- ▶ Do not place anything on the cable. Do not lay anything on the cable.
- ▶ Do not bend the cable. The cable must not be rolled up while charging.
- ▶ It is dangerous to use a single outlet for multiple devices.
- ▶ If the cable or plug is damaged, replace the parts with new ones. Contact your authorized dealer.
- ▶ Always keep your charging set away from flammable gases when charging.
- ▶ The charger can be hot. Do not wrap the charger.
- ▶ The charger can be hot. Do not place the charger on floor coverings such as carpets, tatamis, etc.
- ▶ The charger can be hot. Avoid long skin contact with the charger.
- ▶ Do not immerse the battery or the charger. Do not use in rain.
- ▶ Do not charge the battery for more than 24 hours continuously.
- ▶ If the battery is not fully charged after six hours, disconnect it immediately from the output to stop the charging process and contact your place of purchase. This can lead to overheating, bursting, or ignition of the battery.

WARNING

There is a danger of personal injury or property damage

How safe riding is ensured

Follow the instructions in the user manual of the bike to ensure a safe ride.

Managing the battery

- ▶ The battery comes with a 40% charge. Discharge and charge the battery fully twice to reach an optimum range.
- ▶ Charge the battery before riding.
- ▶ The charger can be used with an input voltage in the range of 100V to 240VAC.
- ▶ After charging pull the cable from the battery and from the wall outlet.
- ▶ Keep the power plug clean and dust free. The charger should be cleaned regularly.
- ▶ Do not rotate the pedals while the battery is being charged and is on the battery holder.
- ▶ Provide ventilation/venting while the battery is charging in enclosed spaces.
- ▶ During storage keep the battery at a charge level of at least 40%.
- ▶ Charge the battery at room temperature between 5°C and 35°C (41°F and 95°F).

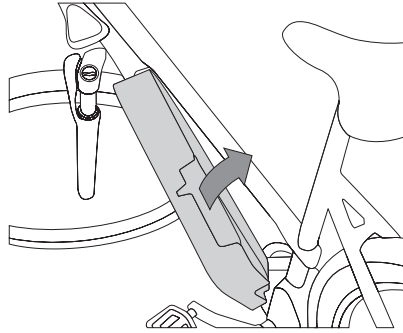
Safe use of the product

- ▶ Examine the battery charger regularly for damage, especially the cable, plug and housing. If the battery charger is damaged, it must only be used after it has been repaired.
- ▶ This product must not be used by persons (including children) with reduced physical, sensory or mental capabilities, or who lack experience and knowledge, unless they are supervised by a person responsible for their safety, or instructed in the use of the product.
- ▶ Do not let children play near the product.

Riding the E-Bike

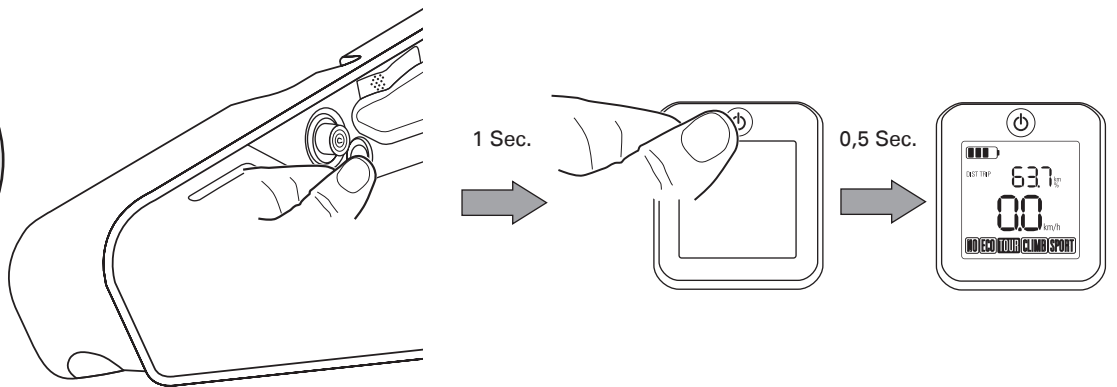
1

Fit the battery and push the battery ON/OFF button



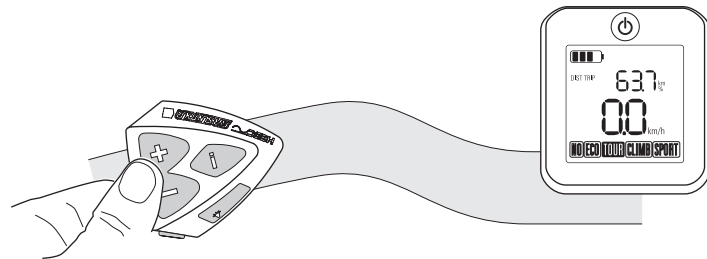
2

Switch on the bike



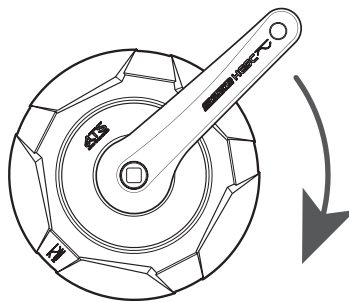
3

Select mode

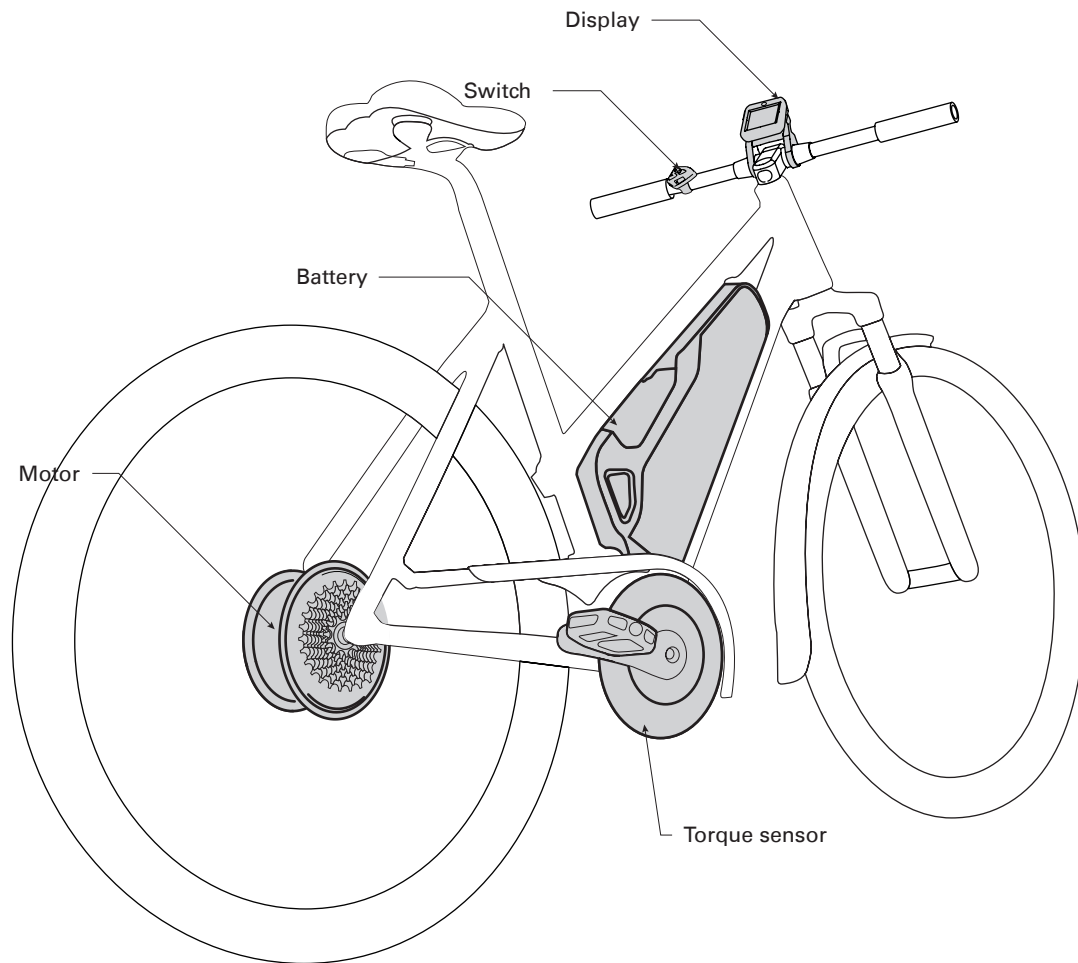


4

Start riding



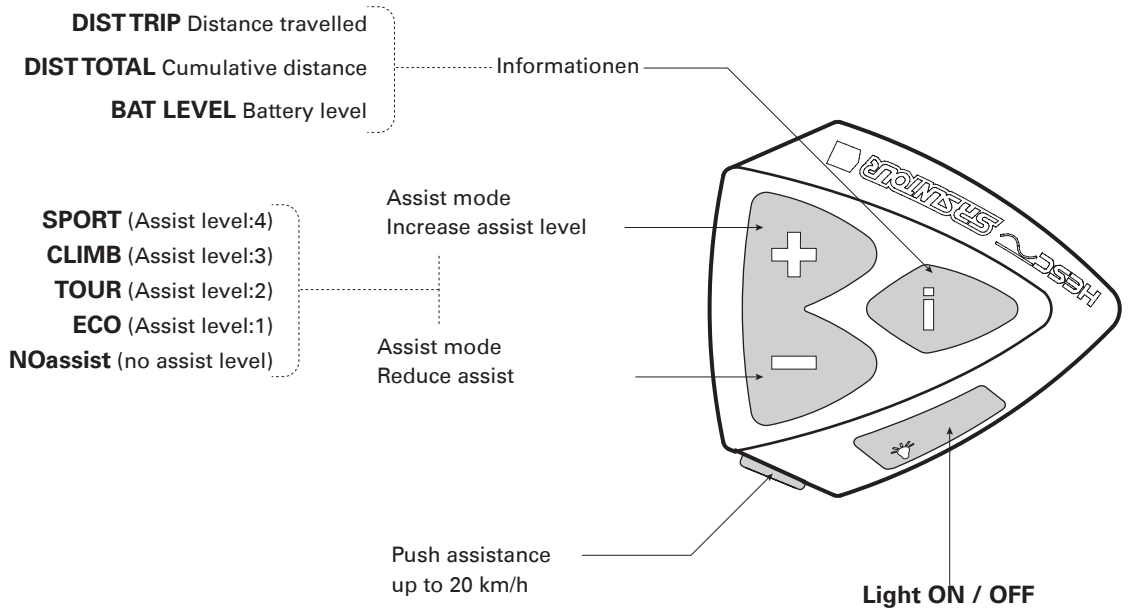
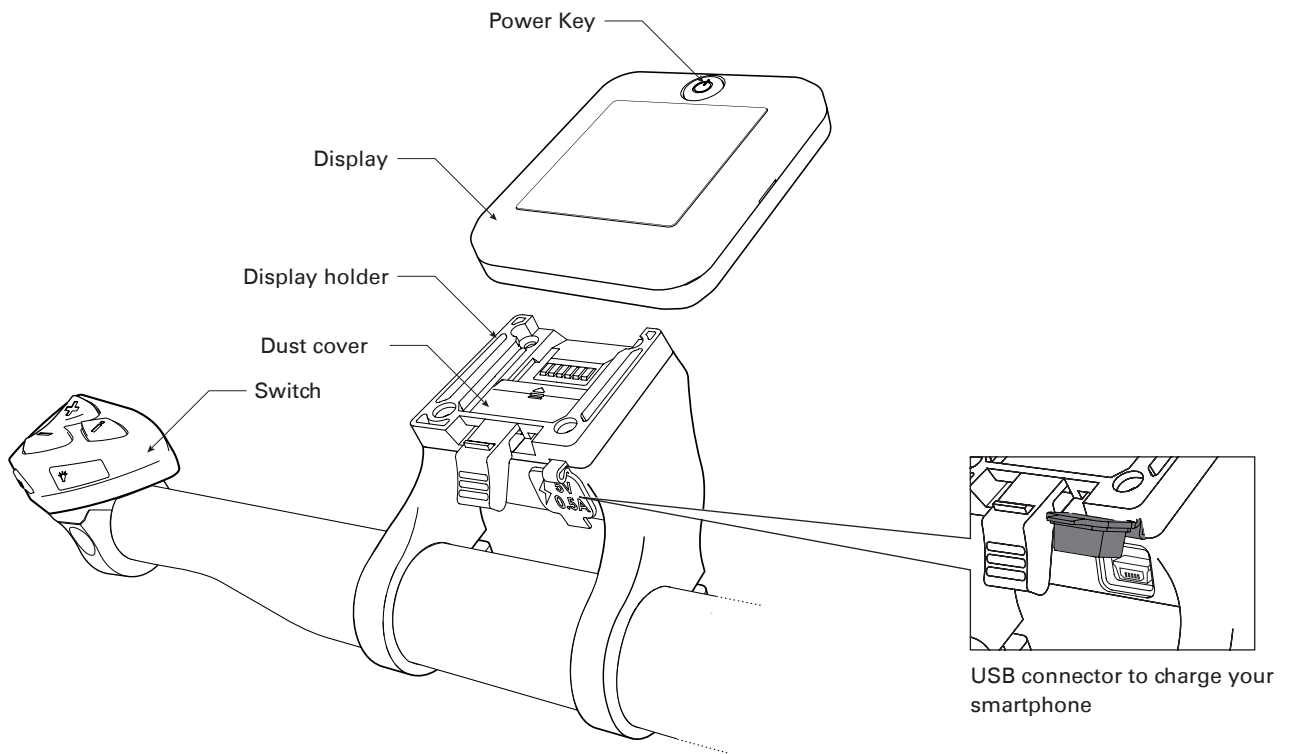
Product characteristics



Product specifications

Operating temperature range during discharge	-20°C to 60°C
Operating temperature range during charge	0°C to 45°C
Storage temperature (battery)	-20°C to 45°C
Humidity (storage)	up to 80%
Charging voltage	100V to 240VAC
Charging time	approx. 5 hours
Battery type	Lithium ion battery
Capacity	662Wh
Nominal voltage	47,25V DC
Motor type	Rear-wheel drive
Motor type	Brushless DC Motor
Nominal motor power	500W
Maximum motor power	750W
Torque	80Nm

Display

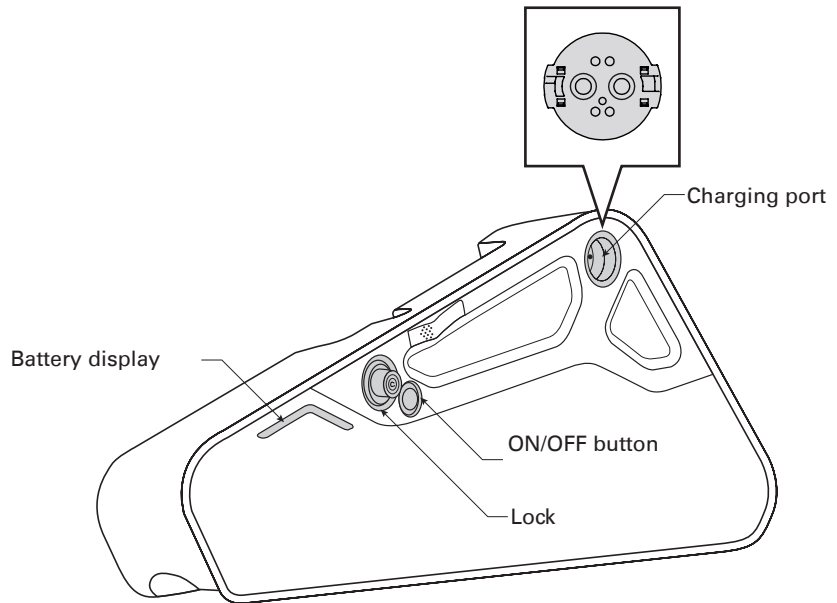


Battery



The number located on the battery key is required when purchasing replacement keys. Write it down in the following box and store it in a safe place..

Schlüsselnummer

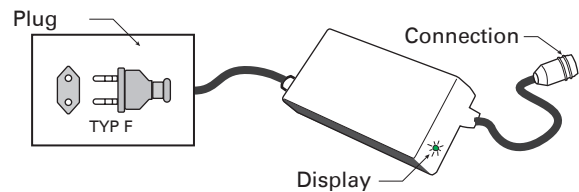


- ▶ If the E-Bike not in use, remove the battery and store it at a temperature between 0°C and 40°C in a dry environment.
- ▶ Do not store the battery with low capacity for a longer period.
- ▶ For storage, the battery should have a capacity of at least 40%.
- ▶ It is recommended to always discharge the battery completely and then fully charge it.

Battery charger

WARNING

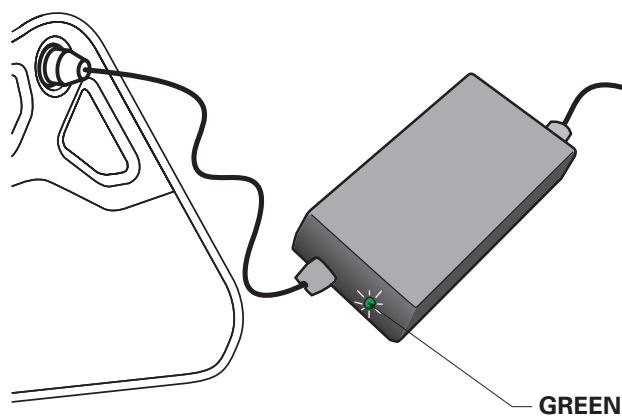
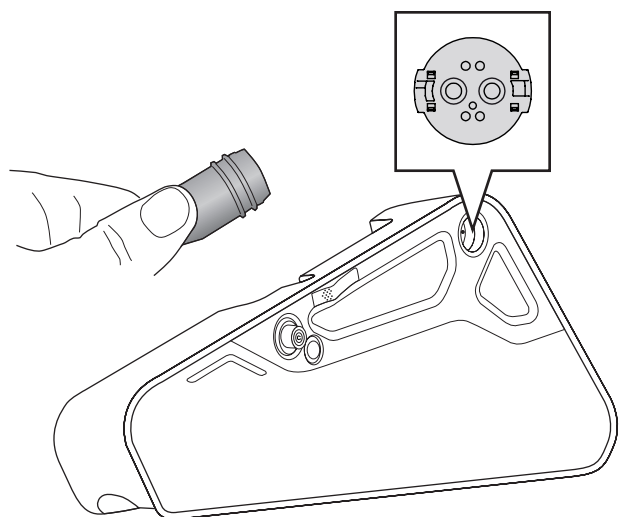
- ▶ Use only batteries and chargers from SR SUNTOUR with your bike. Use of other battery packs can cause injury and involve a risk of fire. If you use other battery packs, we will assume no liability or honour warranties.
- ▶ The battery must not be exposed to direct sunlight, or charged or stored in the vicinity of high temperatures.
- ▶ Avoid contact with metal objects (paper clips, coins, keys, nails, screws, or other small metal objects, as this may cause a short-circuit. Shorts caused in this way will invalidate any warranty claims.
- ▶ Do not open the battery pack. This could cause a short circuit. Opening of the battery package will invalidate any warranty claims.
- ▶ Do not connect, or disconnect the battery pack/charger with wet hands.
- ▶ Keep the battery/charger out of reach of children and animals.



WARNING

- ▶ Do not subject the battery or the charger to physical shocks, e.g., by dropping. Rinse in the event of accidental contact with water. If fluid gets in your eyes, seek medical advice. Fluid that leaks from the battery pack may cause skin irritation or burns.
- ▶ Do not bend the cable. The cable must not be rolled up while charging.
- ▶ The charger can be hot. Do not wrap the charger and place it on floor coverings such as carpets, etc.
- ▶ If the battery is not fully charged after six hours, disconnect it immediately from the output to stop the charging process and contact your place of purchase. This can lead to overheating, bursting, or ignition of the battery.

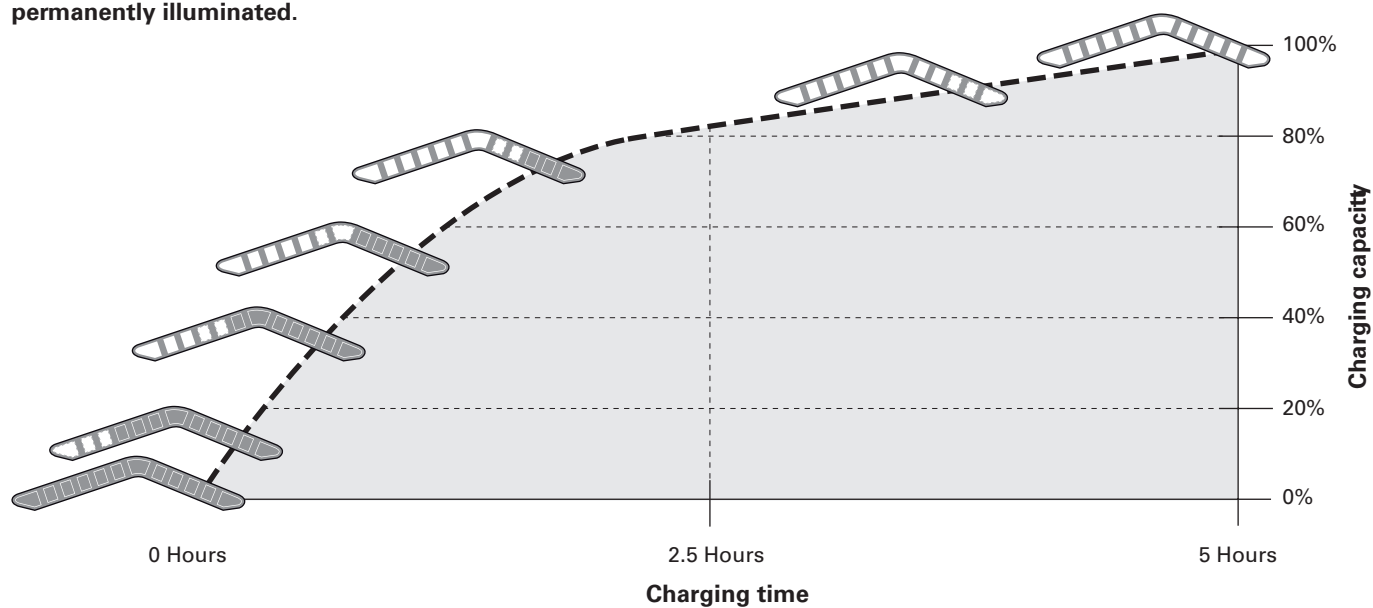
Charging the battery



For further information about charging and battery charge level please see further details on pages 18 - 20.

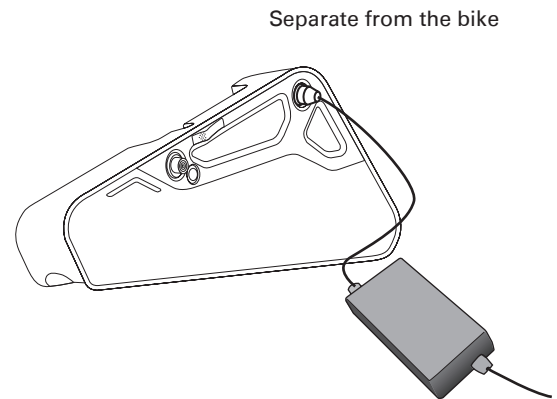
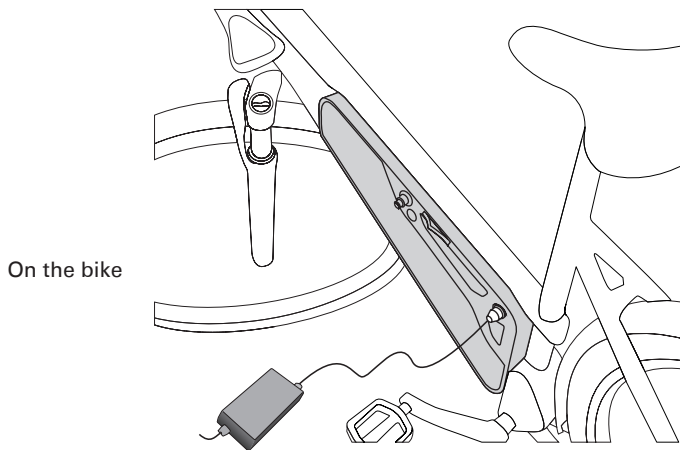
Battery charging indicator

While the battery is being charged, the LEDs from the corresponding area of charge will blink. The battery is fully charged the LEDs will be permanently illuminated.



Every three months or after 40 sub-cycles, you should perform a complete discharge and recharge.

Charging alternatives



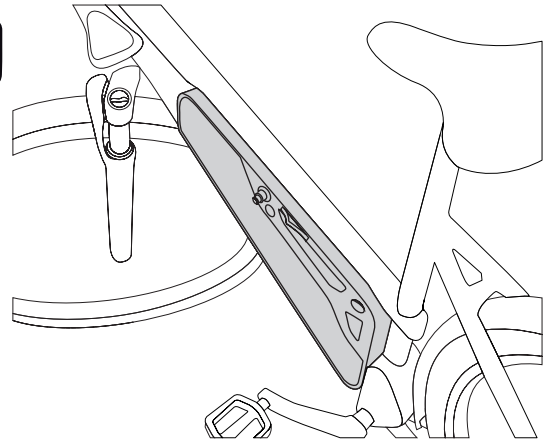
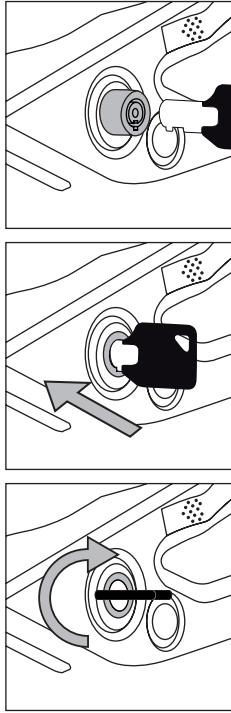
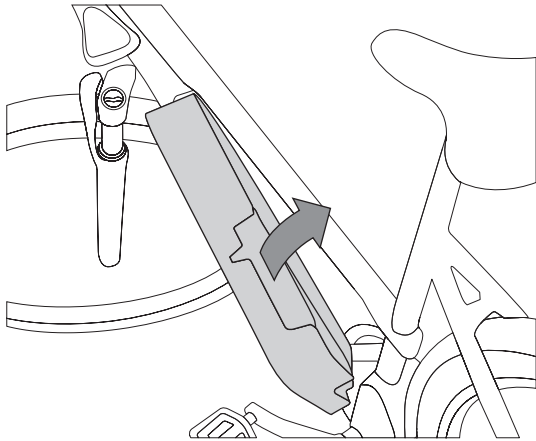
Battery faults



Flashing (0,5s ON / 0,5s OFF)

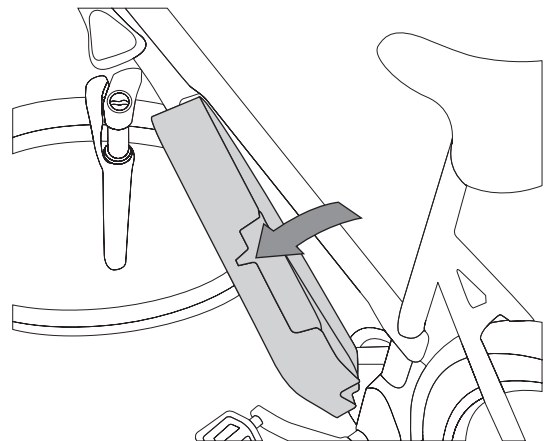
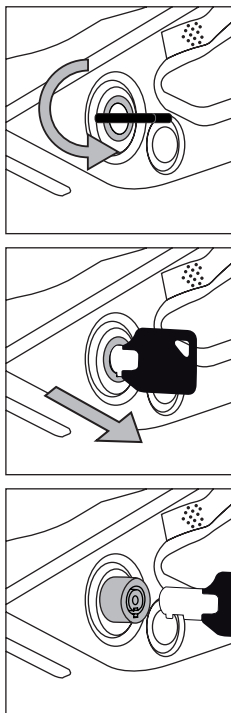
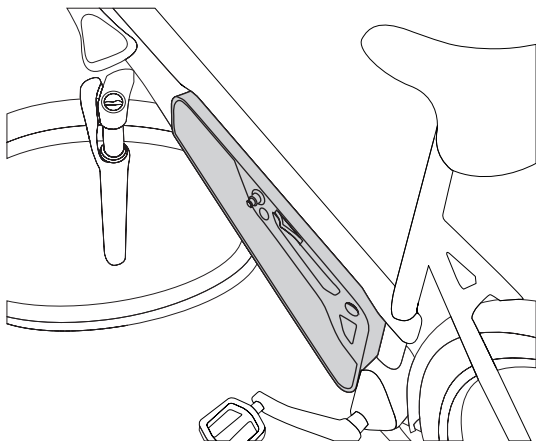
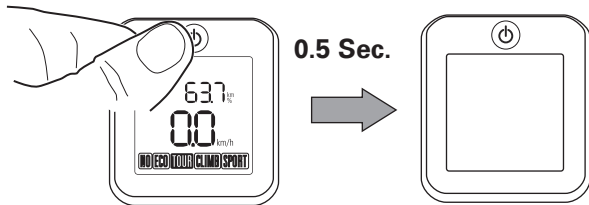
All the LEDs are blinking: your battery is signalling an error. Please do not use the equipment further until your certified dealership has assessed the error.

Inserting the battery



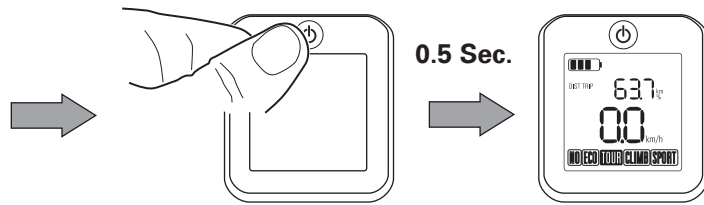
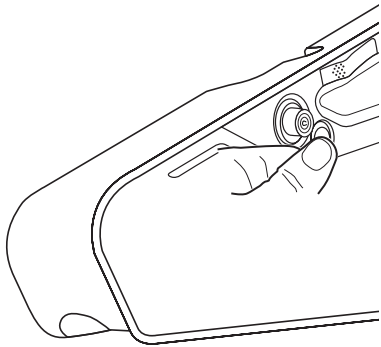
The battery must latch on with an audible click.

Removing the battery

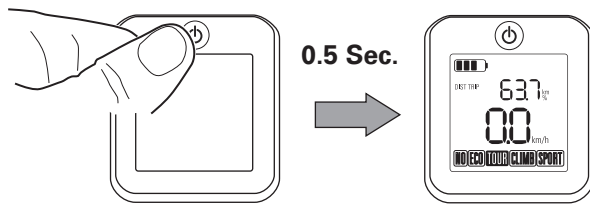


Switching the bike ON/OFF

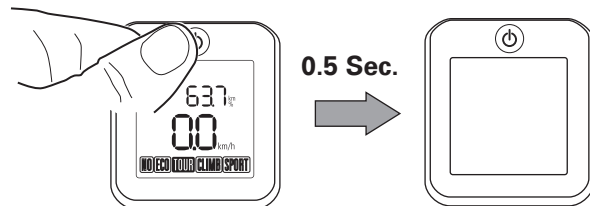
SWITCHING ON



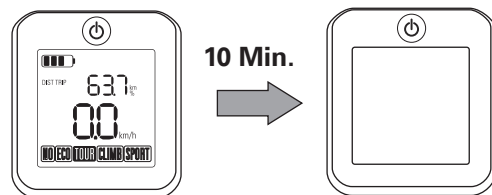
If the system won't start by pressing the displays switch, press the power button on the battery for three seconds.
 Explanation: If the battery is not used for 2 hours or longer, it will automatically go into deep sleep mode.



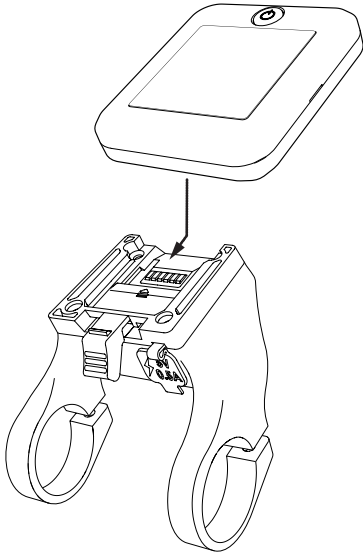
SWITCHING OFF



Automatic SWITCHING OFF

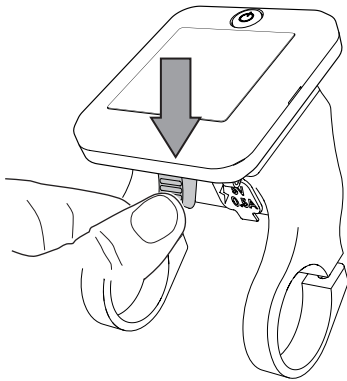


Placing the display

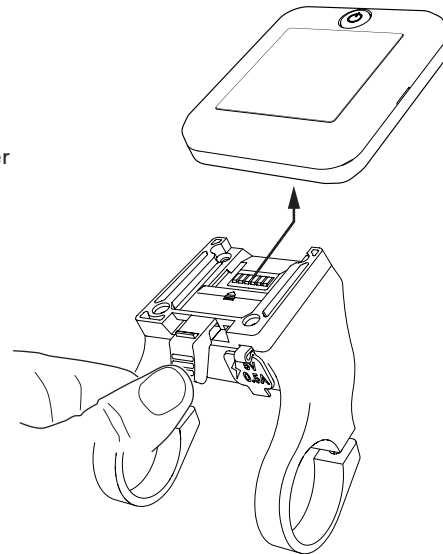


Slide the display as shown in the figure to mount it on the holder. Set the display securely until it clicks on.

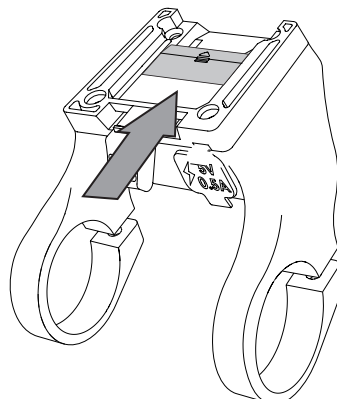
Removal of the display



Press firmly on the lever of the display holder while you slide out the display.



Slide up to cover the contacts and to prevent short circuits and malfunctions.



Base screen display

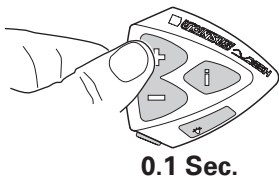


1. Current speed

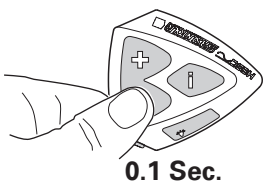
Unit: km/h

Measurement range: 0.0 to 99.9 km/h

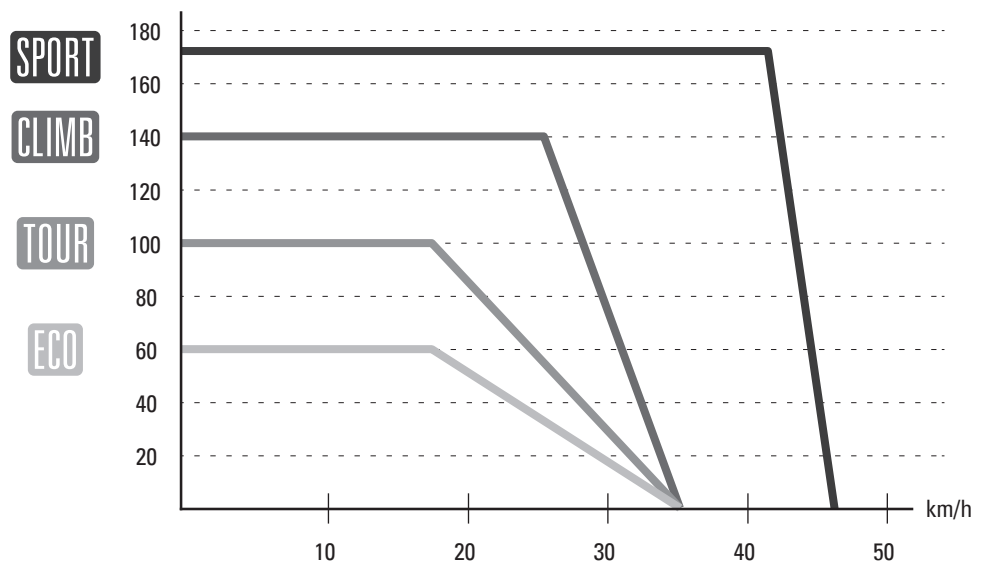
2. Display for changing assist mode



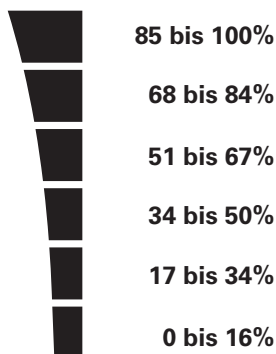
Default setting



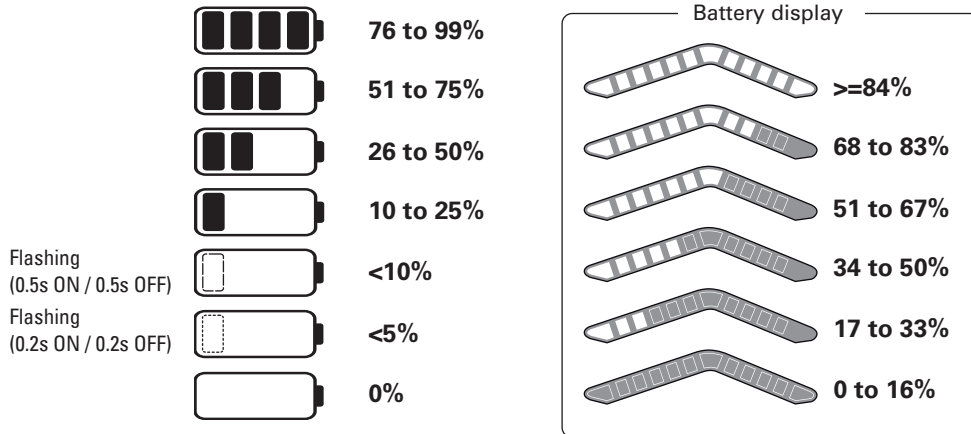
Assist power in %



3. Assist level indicator

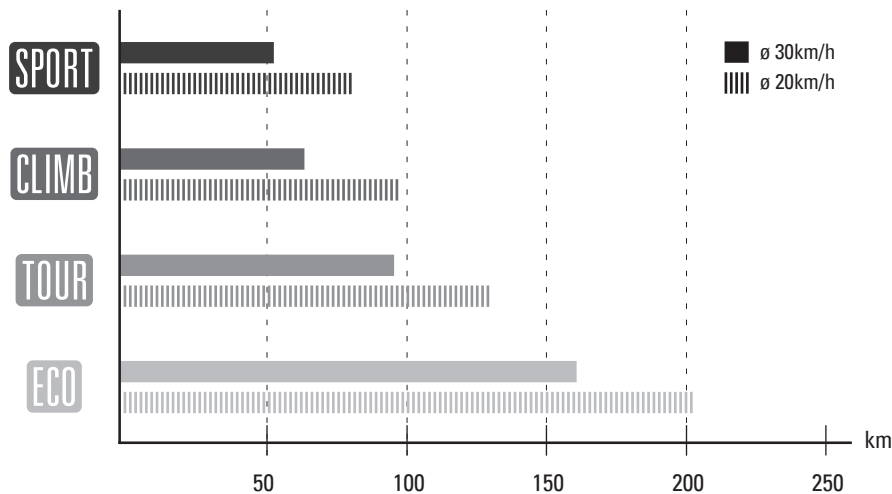


4. Battery capacity



Note:
When the level of charge falls below 10%, the primary LED will blink slowly. When the level of charge falls below 5%, the LED will blink rapidly and stepwise there will be a noticeable reduction in power output.

5. Range



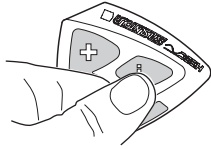
Factors which affect the range

The above figures are based on a speed of 20 km/h on a level road at 15°C–20°C. The range is influenced by many factors:

- ▶ Weight of the rider
- ▶ Weight of the luggage
- ▶ Selection of path
- ▶ Experience and concentration of the rider
- ▶ State of maintenance of the E-Bike
- ▶ Type, condition and air pressure in the tires
- ▶ Nature of the route
- ▶ Speed, average speed and changes in speed
- ▶ Traffic flow, for example, stop and go
- ▶ Wind direction and wind speed

For information on using the battery, see pages 3, 4 and 8. You'll also find information on how to maintain capacity and extend duration.

5. Changing trip information



0.5 Sec.



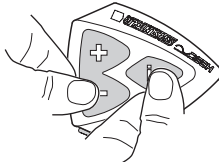
DIST TRIP:

Distance travelled

Unit: 0.1 km

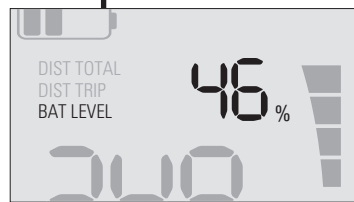
Measurement range: 0.0 to 999.9 km
(default setting)

RESETTING
TRIP DISTANCE



0.5 Sec.

(- & i) key

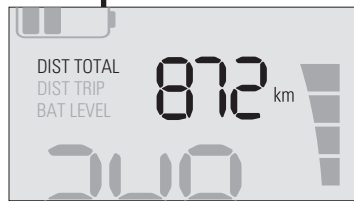


BAT LEVEL:

Battery charge level

Unit: %

Measurement range: 0% to 99%



DIST TOTAL:

Cumulative distance

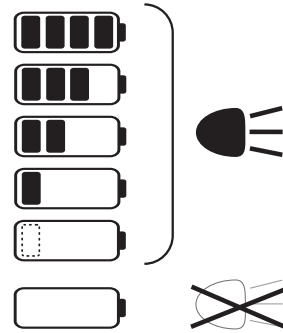
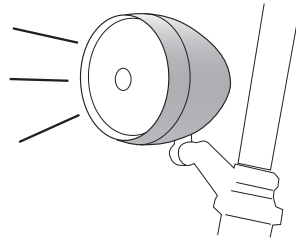
Unit: km

Measurement range: 0 to 9999 km

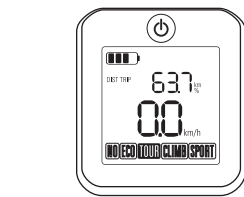
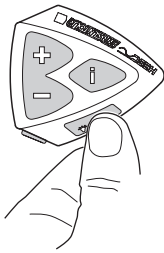
Lighting

Technical data

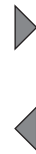
Nominal voltage 6V
Output power: 3.0 W



Changing background lighting



100% Illumination (default)

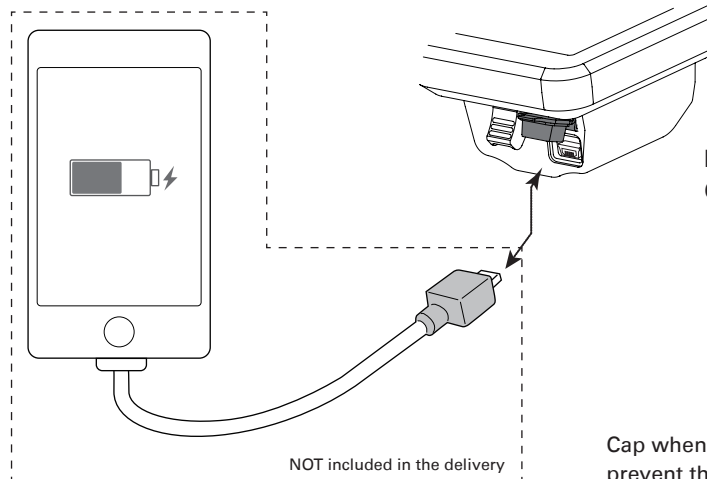


50% Illumination

Note:
During use both the front and rear lights are automatically in operation. In accordance with traffic regulations the light must always be illuminated during the ride. The backlighting can be changed by using the 'Light' switch.

Charging support function

Power supply for external devices via USB port. The USB connector allows you to charge most devices with a mini-USB port.



Mini-USB port
Output: 5VDC 0.5A

WARNING

Cap when not in use. Always close to prevent the possible ingress of water.

NOT included in the delivery

Overheating warning



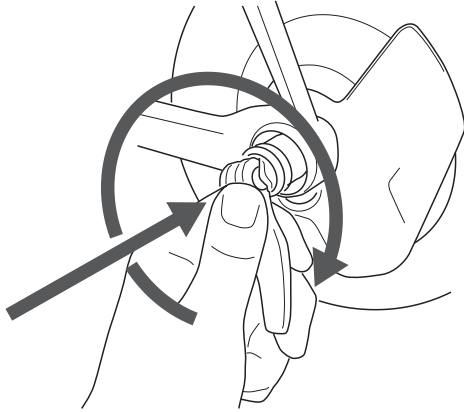
Long and sharp gradients may cause heating of the motor. Flashing of the "SPORT" mode indicates this.

If the engine really overheats, the system will switch itself off in advance to protect the components.

FKA102 \varnothing 12 THRU AXLE SET Instruction

STEP 1:

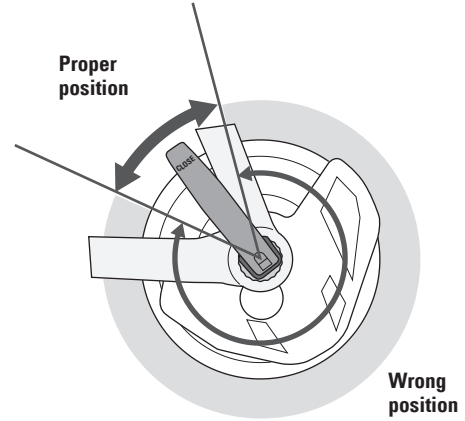
Lever is in OPEN position, insert into frame and motor



Note:
Do not turn with a torque greater than 10Nm.

STEP 2:

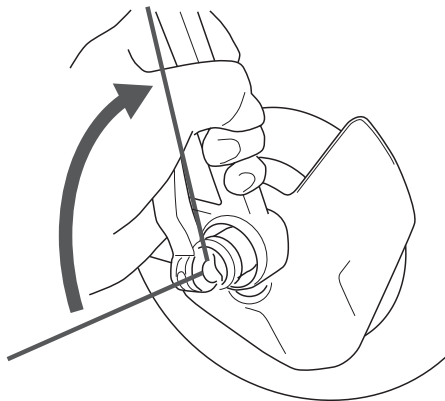
Turn the lever clockwise to proper position.



Note:
For safety reason, the lever should be along the bicycle frame when in the CLOSE position.

STEP 3:

Grip the frame with your fingers and use the palm of your hand to close the lever with as much strength as possible. The side of the lever with the inscription „CLOSE“ must be facing away from the bicycle.

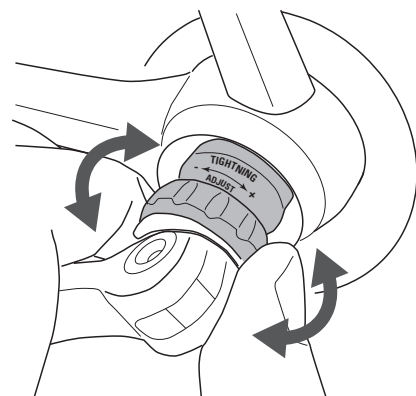


Note:
Tightening force: 80-120N

STEP 4:

If the clamping strength is adjusted too strong and the lever cannot be pushed to the CLOSE position, turn the adjusting knob in a counter-clockwise direction to reduce the clamping strength.

Turn it 1/8 of a revolution, and then try to push the lever to CLOSE, to set the maximum clamping strength with which you can push the quick release lever to the CLOSE position.



BMZ battery information

Short description:

Modes:

The battery has two modes.

1. Active-Mode
2. Deep-Sleep-Mode

Active-Mode:

Press the button (short press one time) on battery case to activate the battery.

If all LEDs flash at once, battery is activated.

Then following functions are available in Active-Mode:

- System status
- Capacity
- Checking current, voltage and temperature
- Checking charging and discharging
- Cell balancing while charging

After 2 hours the battery changes to Deep-Sleep-Mode, if there is no communication from battery to bike system or if battery isn't being charged or discharged. If battery reaches deep discharge, the battery switches to Deep-Sleep-Mode. To re-activate Active-Mode press the button on the battery case or connect the battery with the charger. All LEDs will light up in a sequence to indicate activation.

LED display:

LED Display while charging:

LED corresponding area flashing 0.5s AN / 0.5s AUS	Remaining capacity
1	0-19%
2	20-39%
3	40-59%
4	60-79%
5	80-98%
all LEDs illuminated	>=98%

If button is pressed on battery in Active-Mode, LEDs display the capacity status as follows:

LED corresponding area ON	LEDs flashing 0.5s ON / 0.5s OFF	Remaining capacity
none	1	0-16%
1	none	17-33%
1,2	none	34-50%
1,2,3	none	51-67%
1,2,3,4	none	68-83%
1,2,3,4,5	none	>=84%

If battery has a failure all LEDs are flashing at once. (0,5 sec. ON / 0,5 sec. OFF)

OPERATING INSTRUCTION

CHARGER 54,6Vdc 4A

Part No. 27143-xx

Suitable to charge a

13 cells in serial / 46,8V, max. 30Ah Li-Ion Battery pack



Read this operating instruction carefully before use!

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General Safety Instructions

Read these operating instructions carefully before use!
Improper handling of Lithium Batteries may cause fire, explosion or chemical danger.
Check battery manufacturer instructions.



Charge only Li-Ion battery packs. Do not charge Lead Acid-, NiCd- NiMh or not rechargeable primary batteries. Connect the charger to a suitable mains supply, only. Disconnect the charger from mains and the battery pack if it is not in use for a longer time.



This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved



Children shall not play with the appliance.
Cleaning and user maintenance shall not be made by children without supervision

The charger is designed for usage in a dust-free, dry and ventilated environment.



Do not expose the charger to rain or hot conditions. Don't cover the charger.
Please keep the charger clean and dry.

Do not charge hot battery packs. Battery packs must be at ambient temperature before charging.



Stop the charging process if the battery gets to hot during charging. (>55-60°C)

Do not use the charger if there are any signs of damage.
Do not open the charger or carry repairs. Repairs may be carried from authorized personal with original spare parts, only.



Do not leave the charger unattended during operation.

Functions

1. This charger is suitable to charge a 46,8 Volt Li-Ion battery pack, 13 cell in serial. The max. charge current is 4 A. The max. capacity of the battery pack can be 30 Ah.
2. The charger has a short circuit, overvoltage and wrong polarity protection.
Short circuit (cut off if there is a short circuit on the DC-side). This will be indicated as error. In this case the LED will flash alternating in red and green.
Overvoltage protection (cut off if the output voltage is higher than 60V). This will be indicated as error. In this case the LED will flash red.
Wrong polarity protection (cut off if battery with wrong polarity is connected to the charge cable). This will be indicated as error. In this case the LED will flash alternating in red and green.
3. This charger has an additional safety timer that cuts off the charge after 10 hours. This is also indicated as error. In this case the LED will flash red

Operation

1. Before first use please check the parameters of the charger and your battery according to the rating label or the manual to ensure the accordance.
2. Check if that the local main AC voltage level is suitable for the charger.

AC input voltage	Minimum	Maximum
	100	240

3. For a function test switch the on/off switch to "0" (off) and then plug in the mains cable into an AC mains socket. Then switch the on/off switch to "1" (on). The LED will flash green slowly. That indicates stand by. Then switch off the charger to "0" (off).
4. Connect the DC cable to battery pack and switch on to "1" (on). The LED will flash green. That shows the charger is connected to the mains voltage and charging is started. A battery pack with wrong polarity or a short circuit at the DC cable will be indicated as error by flashing of the red and green LED alternating. If the battery voltage is less than <32,5V the charger will start with a pre-charge current of 1A. If a battery voltage of >32,5V is not reached after 30. min. the charger will cut off. This is indicated as error. In this case please contact your battery supplier.

5. If the battery pack is fully charged the charger cuts off. The LED shows study green light and indicates the full battery pack.

Status	Duo-LED Indicator
Stand by	Green flash slow
Charge	Green flash
Battery full	Green study
Error - Over Voltage - Timer	Red flash Red flash
- Short circuit	Red Green flash alternating
- wrong polarity	Red Green flash alternating

Charge end voltage 54,6 V \square / -1 \square

Warnings

1. This charger has a wrong polarity protection. The right polarity is the base that the charger generates a charge voltage. Depending on the battery safety board, a battery pack that is discharged under its nominal discharge voltage cannot be charged again. In this case please contact your battery supplier.
2. This charger has an internal fan for cooling the electronics. For that this charger should be used in well ventilated, dry, particle free environment. Use in damp, dusty or non-ventilated environment could cause damage to the charger and battery.
Do not use if the ambient temperature is outside 0 \square to 40 \square C.
3. If the internal fan doesn't start during charging when the LED flashes green, please disconnect AC power. If the fan doesn't start, don't charge batteries under any circumstance. In this case do not open the housing. Contact your charger supplier.
4. This charger has an additional fuse that cuts off in major errors. In this case do not open the housing. The fuse should only be replaced by a specialist.

Content

1. Charger with dc cable
2. Operating instructions
3. AC power cord

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