User Manual – LCD Display

Contents

1. Display Features

Turning the key clockwise unlocks the electric drive system.

Press the Power button on the display to turn on the electric system.

While initiating the display will show the wheel diameter.

The keypad consists of 4 keys and 1 LCD-display.
The display shows information about the state of the system and battery level.

The actual speed is shown in the upper right edge as Km/h.

For safety reasons, the assist level selection using the arrow buttons is disabled on this system, so the bike always requires throttle, before the motor is activated. Regardless of the selected assist level shown in the display.

In the lower right edge the display shows the total running distance in kilometers.
It is not possible to reset this value.

Additionally a throttle is assembled to the left side of the handlebar.
The throttle allows you to use the assist system manually.

1.2 Functions of the Keypad

The on/off power key will switch the electric drive and the display on/off.

Pressing the up/down-arrow while driving has no function on this system.

By turning the throttle you can apply assistance manually. The more you turn the throttle the more power assistance you get.

Using the throttle without pedaling activates walk assist up to 6 km/h, to help when pushing the bike, or starting while driving up hill.

The SET-key has 3 functions:

a) Pressing the button quickly once switches on the light in the LCD-display.
By pressing the “up/down” buttons the LCD light intensity may be set.

b) Pressing the key twice switches on the trip distance. Pressing the down-arrow key will reset this value.

c) Press and hold the key for 10 seconds enables adjustment of wheel size, using the up and down buttons. Press Set again to exit the function.

Up/down-arrow keys:
Press and hold both up and down button for 10 seconds to change between km/h and mph speed and distance display.

Failure symbol: A flashing wrench combined with an error code number

1.3 Troubleshooting

The error code will be displayed underneath the speed indicator. The displayed error codes from 02 up to 09 will indicate which failure occured.

In general only specially qualified persons can fix the failures. Please contact your dealer for help.

Code 02	The control unit is overheating. Switch off the electric drive to allow the controller unit to cool down. If the error code is still remaining after switching the electric drive on again, there might be a problem with the electronic components inside the control unit.

Code 03	There is a problem with the cables. Please check the cables, plugs and receptacles for damages.
Code 04	The battery is discharged. Please recharge the battery.
Code 05	The cut-off brake is activated for a long time. Deactivate the cut-off brake. Switch off the electric drive. If the error code is still remaining after switching the electric drive on again, there might be a problem with the electronic components inside the cut-off brake.
Code 06	The speed sensor at the crank shaft is not working properly. Check for damages, dirt and correct position of the sensor. Otherwise contact your dealer.
Code 07	The electric components in the throttle are not working properly.
Code 08	There is a problem with the control unit.

Code 09	The system switched off due to high voltage. Switch off the system. If the error code is still remaining after switching the electric drive on again, there might be a problem with the electronic components inside the control unit.

1.4 Battery Indicator

In the centre of the display a battery symbol is visible.
If this symbol is filled up with bars, then the battery is fully charged.

There are less bars visible the less the Battery is charged.
When the last remaining bar is flashing, this means that the Battery will be completely discharged soon.

Hint: The number of bars might oscillate.
The number of bars is not related to a solid value. It gives only a hint how much capacity your style of riding requires.
While riding uphill or by strong wind ahead the number of bars might decrease rapidly. But if riding downhill afterwards the number of bars might increase again.

2. Battery and charger

2.1 Mounting and dismounting of the battery

Turn the key (ON/OFF) to open position and take the battery out of the rear rack.

Mount the battery again by placing it in the rack and push it into position. Turn the key to locked position and lock the battery.

2.2 Installation of charger

Insert the plug of the battery charger into the battery.

You may charge the battery while mounted in the rack of the bike.

You may also choose to dismantle the battery and take it indoor for recharging

3. Use of battery charger

3.1Description of the charger and charging process

1. Charging of the battery mounted on the bicycle.

- Turn the key to off position.
- Put the plug of the charger into the socket of the battery.
- Put the mains plug (230v) into the power socket and switch on the charger.

2. Charging disconnected battery

- Put the plug of the charger into the socket of the battery.
- Put the mains plug (230v) into the power socket and switch on the charger.

3.

- Power diode is **red,** as long as charging takes place.
- When the diode changes to **green,** charging is complete and the battery is ready.
- **Note** After charging, we recommend that the battery must be left plugged in for 24 hours, in order to equilibrate the cells in the battery.

3.2 Charging

The electric bike uses maintenance-free Li-ION batteries. Please note that the battery can be dismantled from the bike.

The battery is delivered with a capacity of approx. 40-60% charging from the factory. Before commissioning it is necessary to charge the battery to full capacity with the supplied charger (until Green diode is on).

In order to achieve maximum battery life and range of the e-bike we recommend that charging takes place in a heated room. By temperatures below 20ºC prolonged charging time must be expected, with the result that charging of the battery to full capacity cannot take place, which again leads to reduced driving range. Please note that the capacity of the battery will decrease when temperatures fall below 20ºC.

Optimum battery charging conditions are at 20ºC. If the battery is exposed to direct sunlight, the battery life deteriorates considerably.

When the battery is taken indoors for charging, condensation may occur inside the battery as well as on the outside. Therefore, please do not start charging until the condensation has disappeared. The battery contains a printed circuit board that controls each battery cell. If charging takes place while there is still some condensation in the battery, this printed circuit board may be damaged.

Memory effect does not occur in Li-ION batteries. It is thus unnecessary to discharge the battery before starting a recharge.

Charging of the Li-ION battery at many frequent intervals may prolong the battery life. However, please note that once charging of the battery has been started you should not discontinue the process as this may have a negative influence on the battery life.

Note

Rechargeable batteries must always be kept in dry conditions and dismantled from any equipment.

Do not pull the wires when dismounting the charger from the battery. Grab hold of the plug and pull it carefully out of the battery.

Never leave the battery in the charger when the charger is off.

Never leave your battery in your e-bike for a longer period of time.

Please note that the capacity of the battery will weaken over time and at lower temperatures. The more you use your e-bike the more the capacity will decrease thereby affecting the range. Over time the reduced battery performance will also be noticeable when driving in a hilly countryside. The battery life will normally allow charging/discharging up to 600 times.

Please also note that periods with low temperatures will influence the capacity and thus the performance of the battery negatively. This will change when the temperature increases to approx. 20ºC.

Other parameters of major importance for the performance/ range are user weight, driving manners, terrain, surface and tire pressure. The user himself/herself may also influence the performance/range depending on how much pedal power is used.

It costs only little to have the charger connected all the time, as the charger will switch to standby when the battery is charged to full capacity. However, the charger should not be connected for more than max. one week. The battery should then be removed from the charger and charging to full capacity should take place once a month (full charge = green diode on charger is on).

3.3 Storage for the winter

If you put away your e-bike for a longer period (more than one month), it will be sufficient to charge the battery once a month.

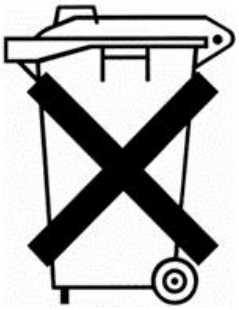
Before putting the battery away for storage you should make sure that it is fully charged, as the battery will be damaged by being left totally or partly discharged for a longer period.

3.4 Warning

- Do not heat, short, puncture or in any other way damage the battery.
- Do not divide or destroy the battery.
- Do not throw the battery into open fire.
- Do not lower the battery into water or any other liquid.
- When charging the battery only use the enclosed battery charger.
- Do not charge the battery at temperature below 0ºC or above 45ºC.
- Do not cover the battery charger.

3.5 Disposal of battery

Batteries contain substances that can be harmful to human health and the environment if not handled properly.



Batteries are marked with symbol of the crossed-out garbage. It symbolizes that waste batteries must not be disposed of with normal household waste but must be separately collected.

It is important that you submit your used batteries to the collection systems established. In this way, you help to ensure that the batteries are recycled in accordance with the law and will not harm the environment.

All cities have established collection systems, where waste portable batteries be collected from households or free can either be submitted at recycling stations and other collection sites. Additional information is available from your local authorities.