



USER'S MANUAL

ELECTRIC BICYCLES

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Congratulations!

First of all, congratulation on your purchasing of our electric bicycle(or pedelec), which is carefully designed and manufactured under strict quality control according to the current European standard EN 14761.

Please read this instruction manual carefully and thoroughly before riding, as it contains sufficient information, which is very important in safety, maintenance and simple assembly. It is the owner's responsibility for reading this manual before riding this bike.

This instruction is applied to the electric bikes with following equipment:

For electric equipment:

- The battery-pack is inside the frame.
- The motor in the rear hub.
- The controller on a box next to battery or integrated to the battery-pack
- Operation panel is installed to handle bar

MANUAL FOR ELECTRIC PART

The model instructed in this manual is made with “start aid”. This electric assistance system will help riders to save their energy, while they enjoy their easy sports.

Here is the function of so-called “start aid”: when you press this bottom indicated “start aid”, the bike can be started at speed of 6 km/h. After the bike moving forward, you can easily pedal on and release the “start aid” button.


Also, you can pedal 3/4 round of the chain wheel to start motor without using the “start aid” button.

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1. Important Safety Cautions:

- We strongly advise wearing an approved helmet, which meet European/USA Standards.
- Obey local road rules when riding on public roads.
- Be aware of traffic conditions
- Parents need to ensure their children are supervised when riding any bicycle equipment.
- Have your bike serviced only by local authorized bicycle shops. Regular servicing will ensure a better and safe riding performance.
- Do not exceed more than 90kg load on bicycle, including rider.
- Do not “dink” or have more than one rider at a time on the bicycle.
- Ensure regular maintenance is carried out on the bike according this owner's manual
- Do not open or attempt to maintenance on any electrical components.
- Contact your local bicycle agent for qualified service and maintenance if needed.
- Never jump, race, perform stunts or abuse your bicycle.
- Never ride under the influence of intoxicating drugs or alcohol.
- We strongly recommend switching-on the lighting system, when riding in the dark, fog or poor visibility.
- When cleaning this bike, please wipe surface with a piece of soft cloth. For the very dirty spot, you can wipe it with a little neutral cleaning agent.

 **Warning:** Do not wash this electric bike direct with spraying water, to avoid water entering electric components, which may result in damage of the electric components and then, the electric assistance bicycle can not be normally used.

2. Operation

Your new electric bicycle is a revolutionary transporting means, applied with alloy aluminum frame, Lithium battery, a super high efficient electric hub motor and controller with pedal assistance system, to make easy biking. The above mentioned equipment will ensure high safe riding with excellent performance. It is important for you to learn the following guideline in order to get the best possible experience with your electric bicycle.

2.1 Checking Before Riding

2.1.1 please ensure tires are fully inflated to 45psi, before riding. Remember, performance of the bike is directly related to the weight of the rider and baggage/load, together with the stored energy in the battery;

2.1.2 Charge overnight, prior to riding the next day;

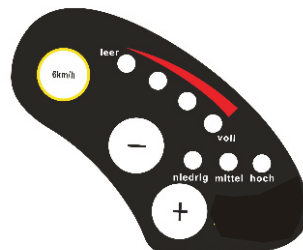
2.1.3 Apply chain oil periodically and clean if dirty or gummed up, using a degreaser, then wipe clean and oil bicycle chain again.

2.2 Switching on the battery

Please turn on the battery with its key in the e-bike.



2.3 Functions of the operation panel



① 6km/h button on Handlebar Panel

The “6km/h” button: the bike can be power-assisted at the speed of 6km/h when you keep pressing this button. After the motor starts working and the bike running, you could easily pedal and release the button.

② Power Display on Handlebar Panel

Under normal situation, when you turn on the power, the 4 LEDs in the square windows shall show you the power situation from “leer” to “voll”. If the power LEDs show all the four, the power is full. the power display LED is blinking, it means you have to charge the battery immediately before riding this bike.

4 LEDs on: Power is 100% full.

3 LEDs on: Power is 70%

2 LEDs on: Power is 50%

1 LED on: Power is 25%

1 LED is on and blinking: Power is nearly empty, and need to be charged.

③ Select Assistance Level on Handlebar Panel

When the power is on, you can shift to 3 assistance levels, low middle and high. Press the button “+” and “-”, to shift the assistance level (Low middle and high). Here is the way how to set the assistance level:

When the power is on , the “middle” LED is on which means the power-assistance is in the 2nd grade. Then you can press the “+” and “-” buttons to choose the Low middle and high.

When selecting the high assistance level, meaning more electric power and less human propulsion are applied to the bike. This level is suitable for uphill, head wind or heavy load riding.

When shifting to middle assistance level, it means electric and human propulsion almost fifty/fifty applied to this bike. We suggest you select this assistance level, when riding on a regular flat paved road.

When shifting to low assistance level, it means less electric and more human propulsion being applied to the bike. Therefore, this is an electric saving level(or economical level). We suggest you select this level when you ride this bike for leisure sports or fitness.

3. Using and Changing the Battery

3.1 Advantages of a Lithium Battery

Your electric bicycle is equipped with high quality lithium batteries, which are light and create no pollution to the environment, as a typical green energy source. As well as the above features, the lithium batteries have the following advantages:

- charging without memory effect
- big electric energy capacity, small volume, light in weight, with large current output, suitable for high power vehicles.
- long life
- A wide working range of temperature: -10°C to +40°C

3.2 Removing and Installing the Battery Pack.

If an AC outlet is available within reach of your bike, you can charge your bike direct there.

Removing the battery is useful for charging in a location where the bicycle may not fit or when no reachable AC power supply exists at the place where the bike is parked.



3.3 Procedure for Charging

Note: Before charging, please also read carefully the manual accompanied with the bike, if any, for the charger and battery issued by the relative manufacturers, to know more details.

Please charge the bike battery according to the following procedure:

3.3.1 Make sure the battery main switch is turned off. Then open the charging socket cover.



3.3.2 Insert the charger output plug into the battery securely and then, plug the main cable of the charger into a reachable AC outlet;

3.3.3 When charging, the LED on the charger will become red, showing the charging is on. It becomes green, after the battery is fully charged.

3.3.4 To finish charging, you must disconnect the charger input plug first from the AC outlet, and after that, disconnect the charger output plug from the battery pack. Finally, close the cover on the charging socket of the battery pack and check the socket, if covered for sure!

Warning:

- 1) You should only use the charger provided with the electric bike, otherwise damage could occur to your battery and void the guarantee.
- 2) When charging, both battery and charger should be minimum 10cm away from the wall, or under a condition of ventilation for cooling. Place nothing around the charger, while in use!

3.4 Using and Maintaining the Battery.

To ensure a longer battery life and protecting it from damage, please use and maintain it according to the guideline below:

3.4.1 ALWAYS charge the battery after riding your bike;

3.4.2 If the bike is ridden less frequently, then a long and full charge each month will be necessary for assisting battery life and capacity.

3.4.3 If the battery will be not used and stored for quite a long time, it is necessary to be fully charged every months, and make a full discharge and recharge every three months.

3.4.4 Lithium battery should be used at the places which remain between -10°C to +40°C in temperature and 65±20% in moisture, and stored under normal temperature 0°C to +40°C, 65±20% in moisture.



Warning:

1) The battery life may be reduced after long storage without regular charging as instructed above, due to long natural over discharge; please charge the battery every 3 months, if you do not ride the e-bike for a long time.

2) Never use any metals directly to connect the two poles of the battery, otherwise, the battery will be damaged due to short circuit.

3) Never put the battery near to fire or heating it.

4) Never strongly shake, punch and toss the battery.

5) When the battery pack is removed from the bike, keep it out of reach of children, to avoid any unexpected accident.

3.5 Using and Maintaining the Battery Charger.

Before charging the battery, please read the bike owner's manual and the charger manual accompanied with your bike, if any. Also, please note the following points regarding battery charger.

3.5.1 This charger is forbidden to be used under the environment with explosive gas and corrosive substances.

3.5.2 Never strongly shake, punch and toss this battery charger, to protect it from damage.

3.5.3 It is very necessary to protect the battery charger from rain and moisture !

3.5.4 This battery charger should be normally used under temperature, ranged between 0°C to +40°C

4. Using and Maintaining the Electric Hub Motor.

4.1 To avoid damaging the motor, it is better to start the motor working after the bike has been pedaled from standstill. Under usual condition, our intelligent e-bikes are programmed in our factory, to start the electric assistance when pedaling 3/4 circle of the chain wheel.

4.2 Do not use the bike in a rainstorm or thunderstorm. Nor use the bike in water. Otherwise, the electric motor may be damaged.

4.3 Avoid any impact towards the hub motor, otherwise, the casting alloy aluminium cover and body may break.

4.4 Make regular check on the screws on both sides of the hub motor, fasten them even if there is just a little bit loose.

4.5 It is necessary to check the cable connection to the motor often, to ensure the hub motor to work always normally.

5. Maintaining the Controller.

It is very important to take care of this electronic component, according to the following guideline:

5.1 Pay more attention to protect from raining and soaking water, which may damage the controller.

Note: In case the controller box may soak into the water, please switch off the power immediately and pedal without electric assistance. You can pedal with electric assistance as soon as the controller is dried up!

5.2 Pay more attention to protect from any strong shaking and punching, which may damage this controller

5.3 The controller should be working under the temperature ranged from -15°C to +40°C



Warning: you may not open the controller box. Any attempt to open the controller box, modify or adjust the controller will void the warranty. Please ask your local dealer or authorized service to repair your bike.

6. Simple Trouble shooting.

The information below is for purpose of explanation, not as a recommendation for user to carry out repair. Any remedy outlined must be carried out by a competent person who is aware of the safety issues and sufficiently familiar with electrical maintenance.

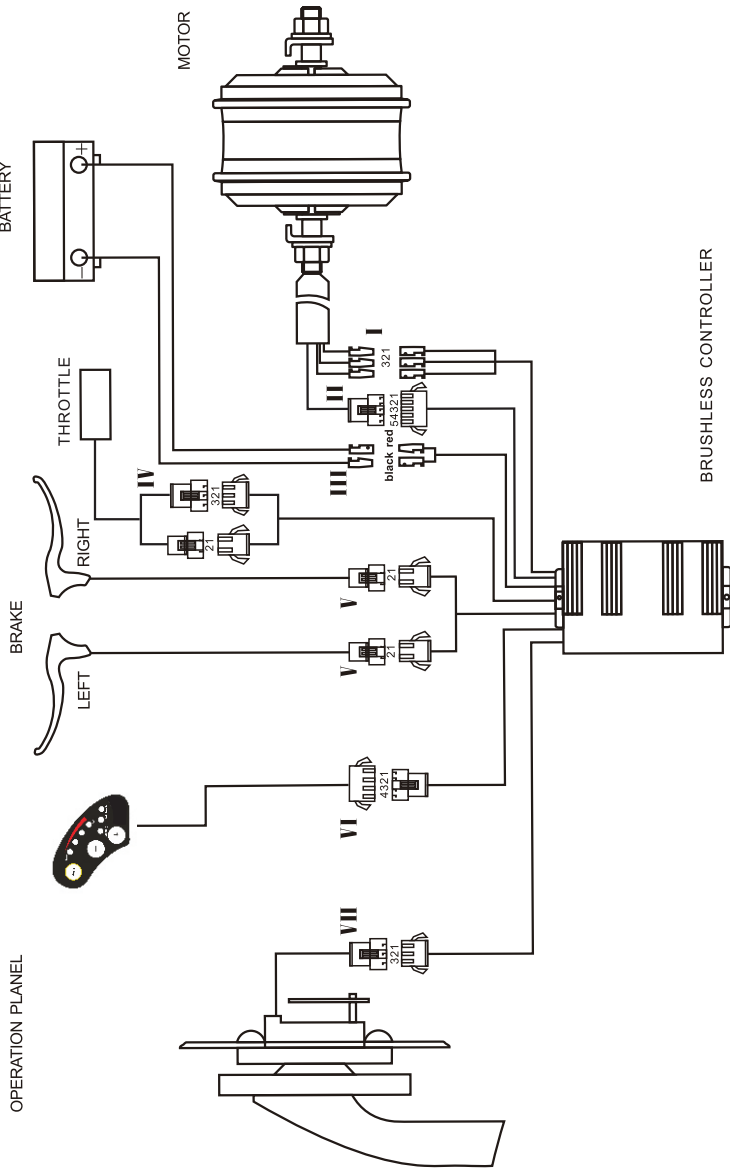
Trouble Description	Possible Causes	Troubleshooting Method
After the main battery switching on, the motor does not generate assistance when press the "6km/h" button or pedaling	The motor cable waterproof connection joint is loose	Check if the connection is securely fixed. If loose, joint them tightly
	Brake lever have not well returned, which makes power off	Make the brake lever come back to its normal position without braking
	Battery Fuse is broken	Open the battery pack top handle, and check if the fuse is broken. If yes, please come to your dealer or authorized service for installing a new fuse
		If the above has no effect, please contact your vendor or authorized service
The distance per charge become short (Note: performance of the bike battery is directly related to weight of the rider and any baggage/load)	Charging time is not enough	Please charge the battery according the instruction Chapter 3.3
	The environment temperature is so low that it affect the battery working	In winter or under 0°C, you'd better store the battery in room
	frequently going up slop, or going again wind, or on the poor road condition	It will be normal if the riding conditions are improved as regular
	The tires are failed to be inflated	Pump the tires and ensure tires are fully inflated to 45psi for your bike.
	Frequently braking and starting	It becomes normal when the riding situation become better. No worry about such a trouble
	Battery have been stored without using for quite a long time	Make regular charging according to this instruction manual
After plug the power outlet, no charger indicator LED is bright	Trouble from the power outlet.	Check and repair the power outlet.
	Poor contact between charger input plug and power outlet.	Check and insert the power outlet tightly
		If the above has no effect, please contact your dealer or authorized service
After charging 4-5 hours more, the charge indicator LED is till red, while the battery is still not full (Note: it is very important to charge your bike strictly according to this instruction stated in Chapter 4. 4, to avoid any trouble and damage occurred to your bike)	Environment temperture is 40°C and above.	Charge the battery in an area under 40°C, or according to this instruction chapter 3.5
	Environment temperature is under 0°C.	Charge the battery in room, or according to this instruction chapter 3.5
	Failed to charge bike after riding, resulting in over discharge.	Please contact your dealer or authorized service and try to recover the electric capacity
	The output voltage is too low to charge the battery.	No charging when he power supply is lower than 100V

7. Diagram and Specification

Here are the main technical specification details regarding the bike. We reserve the right , without further notice, make modifications to the product. For further advice, please contact your vendor.

Electric Circuit Diagram 1

I. motor 3 phase wire is connected with motor 1.Green(motor HA) 2.Yellow(motor HB) 3.Blue(motor HC)	II. Motor 1. Red(+5V) 2. Yellow(motor HB) 3. Green(motor HA) 4. Blue(motor HC) 5. Black(ground)	III Power wire is connected with power 1.Red (+36v) 2.Black (ground)
IV Throttle wire 1. Red (+5V) 2.White (signal) 3.Black (ground) The wire of "Switch" 1. Brown 2. Yellow	V Brake Lever wires are connected with Brake Levers 1.Black(-) 2.Red(Brake Lever Signal)	VI LED panel-Plug 1 1.Red(+) 2.Black(-) 3.Blue(assistance signal) 4.Green (The wire of lock for power)
VII. Power wire of the speed sensor is connected with the controller 1.Blue (speed signal wire) 2.Red (±5V) 3.Yellow (ground)		



Main Technical Specification Sheet

Please find model name of your bike below:

Model Name	Wheel Size
EF-ONE	20"

Here are some general technical Data for electric bikes:

Maximum Speed with Electric Assistance:	25km/h
Distance per full charge:	36V:25-35km/full charge (load, wind, traffic effecting)
Over Current Protection Value:	12±1A(under 36V);
Under Voltage Protection Value:	31V(under rated 36V);

Please find the technical data regarding your bike motor below:

Motor Type:	Brushless with Starry Gears, with Hall
Maximum Riding Noise:	<60db
Rated Power:	200W
Maximum output Power:	250W
Rated Voltage:	36V

Please find the technical data regarding your bike battery and charger below:

Battery Type:	Lithium battery
Voltage:	36V
Capacity:	8.7AH

NOTE: