

# User Manual



# Warning

**Please, pay attention to the following safety advice, in order to enjoy a safe riding experience:**

--Wear an approved helmet, which meets local standards. Obey local road rules when riding on public roads.

--Charge your batteries fully before using it. Please charge the battery 8-10 hours for its first charge.

--Read this User Manual carefully, and check if the vehicle is in perfect working condition before riding.

--Do not exceed more than 120 KG load on the bicycle.

--In order to insure the battery's lifespan, a charge should be done after battery is completely discharged.

--This vehicle can run normally, as long as the water level does not exceed the center of the electric motor or the bottom of the controller box, at the risk of water infiltration it will cause short circuits, damages and accidents.

--In order to reduce power consumption and extend the battery lifespan, use the pedals to support the motor during climbs.

--After receiving the E-bike, please keep the keys separate, otherwise you need to exchange the whole battery if you lose all keys

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# Parts Description

In the following paragraph you will see generic images e bikes, which will cover most Common on parts found on modern e bikes. These may not be directly relevant to you model



1	Display	6	Fender	11	Spoke	16	Chain wheel
2	Grip shifter	7	Front fork	12	Saddle	17	Crank
3	Handlebar	8	Disc brake	13	Seat post	18	Pedal
4	Stem	9	Tire	14	Battery	19	Bracket for license
5	Front light	10	Rim	15	Motor	20	Carrier

# Front Wheel Installation Notes

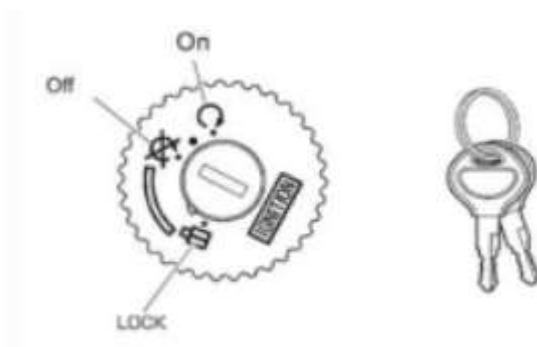
This picture shows how to install the front wheel into the front fork.



# How To Ride

## How To Start UP The Vehicle

Insert key, press and turn it on the ON position. At this point the charge indicator light will turn on, indicating that the vehicle is powered on.



# Battery Charging

## Charging Method

The vehicle battery must be recharged when the power level is running low. You can charge the battery, either assembled or removed from the vehicle. Please take proper attention to the following charging methods:

1. Unlock the battery case with the key at its base
2. Pull the bottom of the battery box to remove the battery.

## Duration Of Charging

1. When the input and output terminal are connected, the red indication light of the charger will be turned on, showing that the power is being connected.
2. When the battery is charged for the first time, 8-10 hours should be taken for charging. When the green indication light of the charger is turned on, showing that the battery is full and it will switch to trickle charge mode to ensure that over-charging will not occur, it takes 5-7 hours for normal charging.
3. This charger has a protection device to avoid over-charging. Long time charging should not be more than 10 hours if possible but if charged for longer no damage will occur
4. Please fully charge the battery at least once every two month when the E-bike is not in use.

# About Charging

## Charging The Battery

1. When the battery is removed, do not touch the “+” and “-“ contacts, especially with wet hands or metallic objects.
2. Do not charge the battery with other chargers.
3. Always be sure it is safely stored/placed so that it cannot suffer damage from a fall / impact.
4. Place the charger on a flat, secure place, and connect the output plug(48V/36V terminal) to the socket in the battery box.
5. Connect the input plug(110V/220V terminal) to the power outlet, and the charging will start.
6. After the charging has been completed, first unplug the input plug.
7. Switch off the power and remove the key when the battery is charging on the bike.
8. If you notice a strange smell coming from the charger, or it is too hot, please stop charging, and contact us or your dealer.

# About Riding

## Important Tips When Riding

1. Do not push the shifter too fast. The vehicle should accelerate slowly, reducing consumption and risk of damage to the electrical system. It's better to use the pedals to support the motor during difficult road conditions.
2. To increase safety and reduce power consumption, it is advised to avoid sudden stops and start-ups.
3. The vehicle controller has a charge overload protection. If the bike is overload energy will be cut automatically and restored when it returns to normal after restarting.

## Important Tips When Parking

1. When pushing the vehicle manually, turn off the power, to avoid accidental acceleration and accidents.
2. It is recommended to park indoors. Do not forget to switch off the power and remove the key.
3. In a public place, the vehicle must be parked in accordance with local traffic rules. Do not forget to switch off the power and remove the key.

# Basic Maintenance

For a safe riding experience, please keep your vehicle in perfect condition by maintenance and washing regularly .

## Regular Maintenance Checks

1. Tightening and correct operation of wheels, frame and front fork.
2. Tyre pressure and surface.
3. Motor and LCD Display system is working correctly.
4. Check bell, reflectors and lights.
5. Brakes(including pads, discs, levers and fluid levels (hydraulic option only)
6. When not being used for prolonged periods, charge the battery at least every two month.

## Maintenance And Cleaning Tips

1. DO NOT use pressure washers when cleaning. (Risks damage to electrical circuit)
2. Dirt should be removed with hot soapy water and a soft cloth.
3. Lubricate the chain after washing.
4. DO NOT apply lubricant to any part of the brakes, wheel rims, tires, battery or motor controller.

# How To Use The LCD Display

## 1. Electrical Parameters

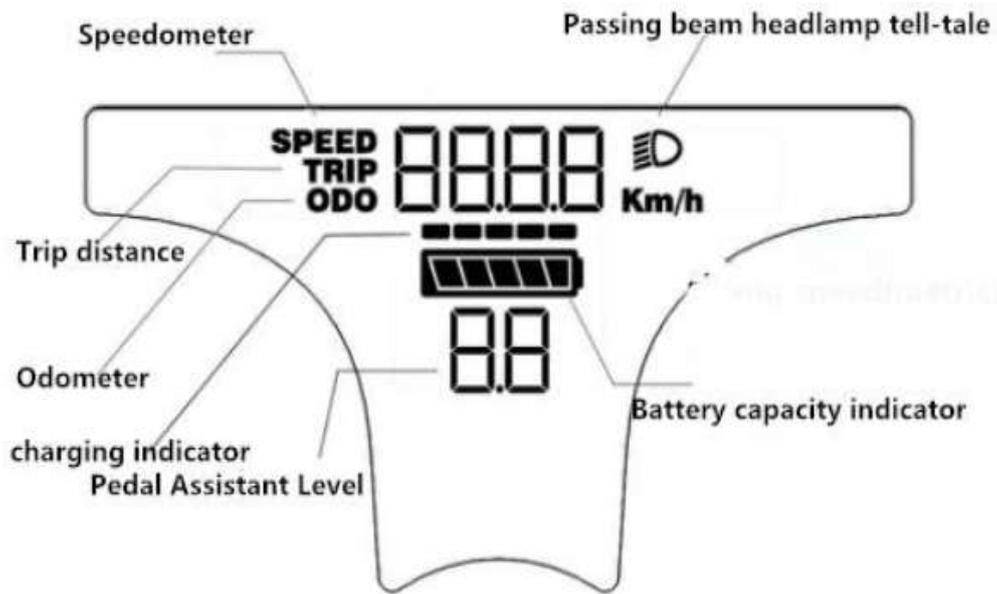
- ◇ Simple external structure
- ◇ 24V/36V/48V battery supply
- ◇ Rated operating current : 40mA
- ◇ Off leakage current < 1uA
- ◇ Max output current to controller : 100mA
- ◇ Operating temperature : -20~60℃, Storage temperature : -30~80℃

## 2. Dimensions & Material

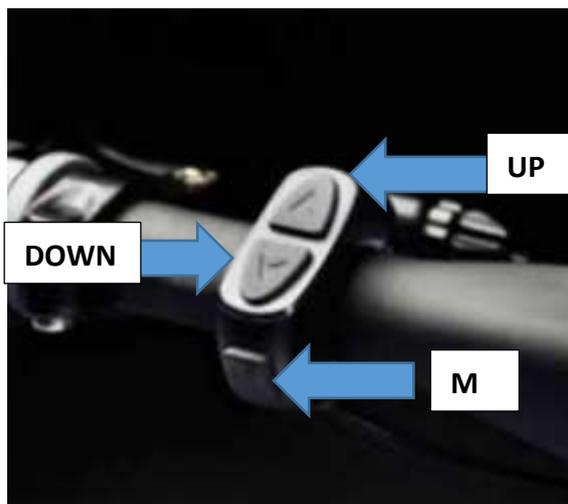
- ◇ Product shell is ABS, transparent window is made with high strength Acrylic.
- ◇ Dimensions : host/L620mm\*W125mm\*H31.8mm



### 3. Screen instructions



### 4. Functional Description



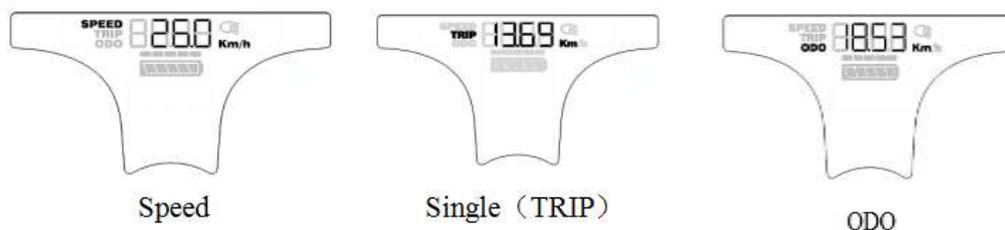
#### 4.1 Power On/Off

Press and hold M for several seconds to toggle the power on or off to both the display and controller. While the power is off, the display will no longer consume power with a leakage current is less than 1uA.

**The bike will be shut down automatically if it is left idle for 10 minutes.**

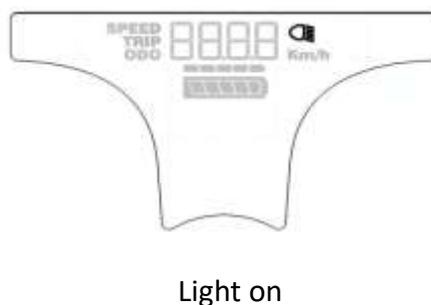
#### 4.2 Selecting Speed Mode(Speed/Trip/ODO)

On turning on the display the default mode is current speed. Pressing **M** will cycle through the other modes in the order of: current speed→Single trip→ODO. If the current speed is over 0 km/h, after 2 seconds the mode will return to Current speed.



#### 4.3 Toggle Headlight

Press and hold **U** for short time to toggle on/off the headlight.



#### 4.4 Push Assistance 6km/h

Press and hold **DOWN** to enable the push assistance mode. The motor will cause the bike to travel at 6km/h.



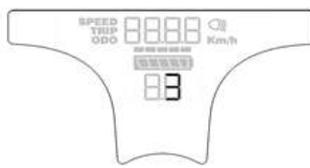
#### 4.5 PAS Level

Press **UP** and **DOWN** to alter the PAS level, changing the output power of the motor. The range of PAS levels is 1-5.

Level 1 is being the lowest and level 5 the highest. The default level is level 1.



Level 1



Level 3

#### 4.6 Battery Indication

When the battery is full, all five segments of the battery will be illuminated. When the battery is critically low, the battery will have no segments and will flash.



Full

Low power

Under voltage

Empty

#### 4.7 Error codes

When the system encounters an error, the display would show the relevant error code. Only once the problem/s has been resolved will the display return to normal functionality. The e-Bike will cease functioning so long as an error code is shown.



Error codes

Error code	meaning	solutions
21	Abnormal Current	Check if the phase of motor is short circuiting
22	Abnormal Throttle	Check that the throttle is not in it's active state
23	No-phase state	Check if the phase wire is normal

		Check if the cable is firmly connected with controllers
24	Abnormal Hall signal	Controllers without hall sensors: Check that the phase wire is normal Controller with hall sensors: check if the hall wire is normal
25	Abnormal Brake	Check that the brake is not being applied
30	Abnormal Communication	Check if the display and controller are connected properly

## Motor Information

### Attentions:

- 1..Inner gear of motor is self-lubricating, no maintenance required.
- 2.Motor waterproof grade is Ip54 and rainproof. The motor should never be submerged fully into water.
- 3.Please keep out of direct sunshine or under the required temperature and humidity range (-20℃ ~40℃)
- 4.To prevent bearings rusting they should rotated once time each month or powered up and operated for 5 minutes freeload.
- 5.Without professional guidance, please never remove the motor.
- 6.Please don't be stored in the rain, water droplets, or harmful gas or liquid.

**Technical information:**



**Wheel size(inch):700C**

**Construction:gear drive**

**Rated voltage(DCV):48**

**Rated power:500W**

**Max torque(N.m):48**

**Efficiency(%) $\geq$ 80**

**Noise grade(db):<55**

**Operating temperature:-20-45 °C**

# Q&A:

No power	<ul style="list-style-type: none"> <li>(1)Insufficient battery power</li> <li>(2)Faulty connections</li> <li>(3)Key in wrong position</li> </ul>	<ul style="list-style-type: none"> <li>(1)Charge the battery</li> <li>(2)Clean the connections</li> <li>(3)Turn the key into the correct position</li> </ul>
Irregular acceleration And /or reduced top speed	Insufficient battery power	<ul style="list-style-type: none"> <li>(1)Charge the battery</li> <li>(2)Weld and adjust</li> <li>(3)Take to authorized service center</li> </ul>
Reduced range	<ul style="list-style-type: none"> <li>(1)Low tyre pressure</li> <li>(2)Low or faulty battery charge</li> <li>(3)Riding on too many hills, headwinds, heavy braking ,excessive load</li> <li>(4)Battery discharged for long period of Time without regular charges, aged or damaged.</li> </ul>	<ul style="list-style-type: none"> <li>(1)Adjust the tire pressure</li> <li>(2)Check the connections and /or fully charge the battery</li> <li>(3)Use more pedal assist</li> <li>(4)Replace the battery</li> <li>(5)Make a prolonged battery charge</li> </ul>
The battery will not accept charge	<ul style="list-style-type: none"> <li>(1)Charger not correctly connected</li> <li>(2)Fuse blown in battery box</li> <li>(3)Battery wiring disconnected or faulty connection</li> </ul>	<ul style="list-style-type: none"> <li>(1)Re connect charger</li> <li>(2)Replace the fuse</li> <li>(3)Reconnect/repair the wiring</li> </ul>
Noise from drive system	<ul style="list-style-type: none"> <li>(1)Damaged motor bearing</li> <li>(2)Bent or misaligned rim</li> </ul>	<ul style="list-style-type: none"> <li>(1)Replace the faulty bearing</li> <li>(2)Adjust /replace the rim</li> </ul>
When powered on, the motor doesn't work	<ul style="list-style-type: none"> <li>(1)Loose wiring</li> <li>(2)Loose or damaged motor wiring plugs</li> </ul>	<ul style="list-style-type: none"> <li>(1)Repair and/or reconnect</li> <li>(2)Solder and adjust</li> <li>(3)Take to authorized repairer</li> </ul>

**For your safety, do regular maintenance and tightening checks. If you find any abnormality, repair immediately.**

## Useful Tips

**1.This user manual is only to explain the vehicle's use and functions**

**2.The images shown may differ from the actual model presented**

**3.We reserve the right to change the model without prior notice due to technical improvements**

**4.This vehicle has a top speed limiter. For security reasons, Its removal is strictly prohibited**