

# ELECTRIC BICYCLE OWNER'S MANUAL

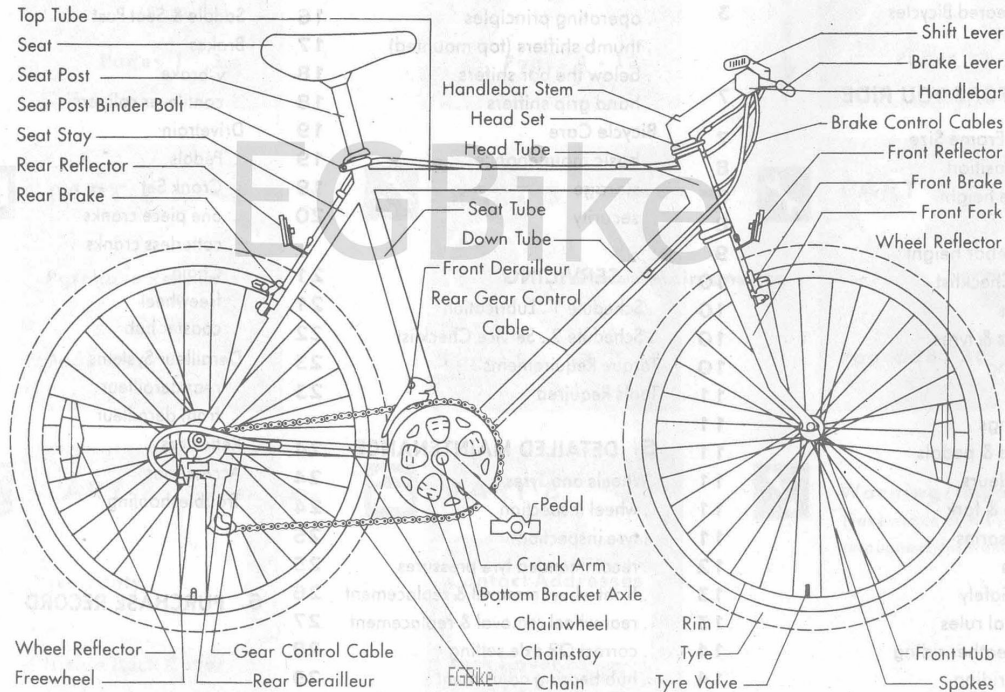
## For Owners of EG Kyoto 350 Electric Bicycle

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# INSTALLATION INSTRUCTIONS

**Mountain Bicycles & Crossbikes** . Mountain bicycles are designed to give maximum comfort over a wider variety of road surfaces. The wider handlebars and convenient shift lever position make them very easy to control. Wider wheel rims and tyres give them a softer ride with more traction on rough surfaces. The frame and fork on mountain style bicycles is much sturdier and heavier than a racing style bicycle. A variation of the mountain bicycle is the crossbike or hybrid. This style of bicycle is lighter than a mountain bicycle but not as fast as a racing bicycle. It combines some of the features of comfort and control with lighter weight and higher speed.



## How to install the bicycle out of the box

1. Unpack the bicycle from the box and cut all the ties that held the bicycle together during shipping.
2. Install the handle bar by loosening the nut on the fork stem, remove the amount of spacers desired for adjusting the height of the handlebar on the fork stem and then replacing spacers such that they are slightly higher than the nut lock. Then replace the nut on the fork stem over the stem using the Allen key supplied.
3. Tighten the handlebar stem by tightening the 2 hex screws on the side of the handlebar stem using the Allen wrench supplied, to ensure the proper guidance of the fork.
4. ! WARNING: Do NOT over tighten nut against the fork; for you will risk damaging your suspension fork.
5. ! WARNING: Remember to tighten the 2 nuts on the side of the stem to ensure the handlebar guides the direction of the fork.
6. The front and rear LED/reflector Lamp runs on regular AA or AAA batteries. The Front LED is turned on/off by clicking on the button on rear of the lamp. The rear LED lamp switch is on top of the rear LED. Remove the plastic tabs in the battery to start using them.
7. Install the pedals to the bike. Each of the pedals has a letter indicating which side it needs to be installed to. R=Right and L=Left. Install them using the provided wrench.
8. ! WARNING: Before riding the bicycle ensure the main Li-ion battery is properly installed and locked in before riding the bicycle. If the Battery is not firmly locked onto the holder, it may slide out and cause damage to the battery.

9. Insert the battery into the battery holder by aligning the side tabs and then lock in your battery with provided key. Ensure that the rails/tabs are properly aligned below the battery. Ensure that the battery is locked in by lightly tugging on the battery upward to ensure it will not slide out.

## OPERATION INSTRUCTIONS

### How to operate the Electric Bicycle

To turn on the flow of electricity to the bike's electrical system, toggle the "RED" Switch on the battery to "1". To turn off the flow of electricity to the bike, toggle the "RED" switch on the battery to "0".

The Electric bicycle can be operated in 3 different modes:

#### 1. *Manual Mode (Level 0)* –

- Turn on the electrical system to the electric bike by depressing and hold the "Mode" button on the handlebar controller for 2 seconds. Depress the "Down" button until the display reads "0".
- In this mode, the pedal assist is off
- In this mode, the throttle is still active (or "ON") and will go up to 20mph
- The motor will stop if the brake lever is depressed even if your throttle is still depressed.

#### 2a. *Pedal Assist Mode (Level 1, 2 and 3)* –

- Turn on the electrical system to the electric bike by depressing and hold the "Mode" button on the handlebar controller for 2 seconds. Ride the bicycle normally as you would any bicycle.
- The motor will stop if the brake lever is depressed even if you are still pedaling the bicycle.
- The motor will stop when you stop pedaling in this mode.
- To put your bike in pedal assist mode 1, 2 or 3, turn on your bike's electrical system and then use the up/down button on the handlebar controller to pick the desired pedal assist level.
- In Pedal assist mode level 1, the system will provide you with the most "miles per charge" with the battery in use among the pedal assist modes. This is the most power efficient way to ride your ebike with the motor switched on.
- In Pedal assist mode level 2, the system will provide you with moderate to high "miles per charge" of battery power use among the pedal assist modes. This is the second most power efficient way to ride your ebike with the motor switched on.
- In Pedal assist mode level 3, the system will provide you with moderate "miles per charge" of battery power use among the pedal assist modes. This is the third most power efficient way to ride your ebike with the motor switched on.

#### 2b. *Pedal Assist Mode (Level 4 and 5)* –

- Turn on the electrical system to the electric bike by depressing and hold the "Mode" button on the handlebar controller for 2 seconds. Ride the bicycle normally as you would any bicycle.
- The motor will stop if the brake lever is depressed even if you are still pedaling the bicycle.
- The motor will stop when you stop pedaling in this mode.
- To put your bike in pedal assist mode 4 or 5, turn on your bike's electrical system and then use the up/down button on the left handlebar control to pick the desired pedal assist level.
- ! CAUTION: This mode is designed to achieve a speed of >20 MPH. User discretion is

advised

- In Pedal assist mode level 4, the system will provide you with the low amount of “miles per charge” with the battery in use among the pedal assist modes. This mode will provide you with speeds on pedal assist over 20mph. User
- In Pedal assist mode level 5, the system will provide you with the least amount of “miles per charge” with the battery in use among the pedal assist modes. This mode will provide you with the maximum speed on pedal assist over 20mph, as fast as the motor can turn.

### 2c. Pedal Assist Mode (Level 0)

- Turn on the electrical system to the electric bike by depressing and hold the “Mode” button on the handlebar controller for 2 seconds. Ride the bicycle normally as you would any bicycle.
- The motor will stop if the brake lever is depressed even if you are still pedaling the bicycle.
- The motor will stop when you stop pedaling in this mode.
- To put your bike in pedal assist mode 0, turn on your bike's electrical system and then use the up/down button on the left handlebar control to pick the pedal assist level 0.
- In this mode, the motor will only function with the use of the throttle.
- The Pedal assist will not function in this mode.
- ! CAUTION: This mode can achieve a speed of up to 20 MPH. User discretion is advised
- The motor will stop if the brake lever is depressed even if you are have the throttle depressed/engaged.
- This mode will give you a Medium to low “miles per charge” of battery power use among the pedal assist modes, depending on your throttle use
- To switch back to pedal assist modes, use the up/down direction button on the handlebar control to pick the desired pedal assist mode levels.

### 3. Fully Electric Mode –

- Turn on the electrical system to the electric bike by depressing and hold the “Mode” button on the handlebar controller for 2 seconds. Ride the bicycle normally as you would any bicycle.
- The motor will stop if the brake lever is depressed even if you are still pedaling the bicycle.
- The motor will stop when you stop pedaling in this mode.
- Turn on the bike's electrical system and then use the up/down button on the left handlebar control to pick the desired pedal assist level. While the thumb throttle is engaged, the pedal assist mode is not active and has no effect on the speed or power of the electric motor.
- Depress the thumb throttle in any increments of power you desire to power the motor of the bicycle and it will take off.
- This mode can be used in conjunction with any of the above modes as the amount of motor power supplied while twisting the thumb throttle overrides whatever pedal assist mode level.
- You can engage this mode whenever you want as long as the system is turned “ON”.
- While pedaling will lighten the load demand on the electric motor, you do NOT need to pedal in this mode of operation.
- ! CAUTION: This mode is designed to achieve a speed of up to 20 MPH. User discretion is advised
- The motor will NOT stop when you stop pedaling while the thumb throttle is engaged.
- The motor will stop if the brake lever is depressed even if the thumb throttle is engaged.
- ! CAUTION: Remember to let go of the thumb throttle when getting on or off the bike

weather or not the brake levers are engaged.

- In this mode, the electric bike will use the as much if not more amount of battery power than in pedal assist modes 4 or 5.
- This mode will give you the low “miles per charge” compared to most of the above pedal assist modes of operation

#### 4. *Walk Assist Mode –*

- To engage Walk assist mode, turn on the electrical system to the electric bike by depressing and hold the “Mode” button on the handlebar controller for 2 seconds. And then Depress and Hold the “Down” button on the handlebar controller continuously to have the bike assist you on the road.
- Walk assist will stop as soon as you release the button

#### 5. *Engaging the Front and Rear LED Lamps -*

- After turning on the bike’s system, depress and hold the “UP” button for 2 seconds to engage front and rear LED as well as the LCD back light.
- To turn the Lamps off, depress and hold the “UP” button again for 2 seconds, or by simply turning off the bike’s electrical system via the “MODE” button or the battery “On/Off” switch, the lights will turn itself off as well.

About the Brake Safety Feature on all our Electric Bikes.

- ALL our electric bikes make use of a wired brake lever kill switch for safety purposes. When the brake lever is engaged, it sends a kill signal to the controller to disable the motor under all circumstances and condition. This will ensure the motor does not continue to spin when you need the bicycle to stop.

### **How to read the Battery Meters and about the Li-on battery**

There are 2 Battery meters on your bike. 1 is located conveniently on the Handlebar LCD. The other Battery meter is located on the battery showing the current capacity of the battery in various states of discharge. To check the battery capacity on the LCD simply install the battery and turn on the electrical system. To check the battery capacity on the battery, turn on the battery and then depress the battery meter button.

As with any Lithium-ion batteries, there are a limited number of times a battery can be charged. While priming Lithium-ion batteries are not necessary (which means it may be charged whenever you want without affecting its charge capacity), the number of times it is charged does affect the overall longevity of the battery life.

To conserve battery power, switch off the electrical system by pressing the “ON/OFF” button on the battery, when the electric power is not needed.

To reset the Trip-o-meter on your LCD hold the “Mode”+”Up” button simultaneously for 2 seconds.

! NOTE: You can remove the keys from the bike after locking the battery onto the rack. You do not need to leave the key inserted on the bike to operate the electrical system of this bicycle.

**! WARNING:** Please keep your keys to your electric bicycle in a safe place. Each set of keys are unique to your particular electric bicycle and unfortunately we do not keep a copy of your keys on file. Nor would we have a way of reproducing them.

## **CARE INSTRUCTIONS**

### **Battery**

**! WARNING:**

- Never short circuit the charge or discharge battery terminals.
- Never charge the battery by the discharge terminals or discharge the battery by the charge terminals.
- Keep the battery away from excessive heat and or open flames.
- Never pour on or submerge the battery in water.
- To avoid damage to the battery, never subject the battery to intense physical impact, shock or severe vibration.
- Protect the battery from water or moisture at all times.
- Protect the discharge and charge terminals of the battery from rain or water logging.
- Keep the battery away from children.
- When the battery is not in use for an extended period of time, remove the battery from the battery holder for storage.
- Never disassemble the battery. The battery does not contain serviceable parts.
- Do not sit on or place any object on or over the battery.
- Use only the supplied charger to charge the battery.

Battery capacity: 13Ah

Battery and Motor Voltage: 48V

Charge temperature range 0~45°C

Discharge temperature range -20~55°C

Total Charge time from total discharge: 4-8 hours

Total Charge time for the initial first 3 charges: 12 hours

If you have any questions about this battery or its usage, please do not hesitate to contact us

### **Storage, Maintenance and transport**

#### **Battery**

- If the battery needs to be stored for an extended period of time, it should be kept at around 50% charge capacity (or charge the battery for about 2-3hours from empty) and should be placed in a dry and well ventilated place.
- To maintain battery life expectancy, the battery needs to be charged at least once for 2-3 hours every two months.
- The battery and charger should be kept in storage in a clean, dry and well ventilated place. Avoid contact with corrosive substances and keep the battery away from excessive heat and or open flames.
- Should the battery need to be transported, pack it in a box, and ensure that it is always protected from intense physical impact, shock, severe vibrations, direct sunlight, or water logging. The battery may be transported in a vehicle such as an automobile, train, ship, airplane and etc. Please check your local rules and regulations regarding such transportation.

Battery Storage conditions: Room temperature -20~35°C,

Battery Storage relative humidity: 5~65%RH

#### **Charger**

- The charger should be disconnected from the battery when it is kept in storage.
- Should the charger need to be transported, pack it into a box and ensure that it is always protected from intense physical shock, severe vibrations, impact, direct sunlight, or water logging. The battery may be transported in a vehicle such as an automobile, train, ship, airplane and etc. Please check your local rules and regulations regarding such transportation.

Charger Storage conditions: Room temperature -20 ~ 35°C,  
Charger relative humidity: 5~65%RH

#### **Charger**

! WARNING:

- Never place any object on the charger.
- Never pour any liquid on or insert any metal into the charger.
- Never disassemble or modify the charger in anyway.
- Never plug or un-plug the charger with a wet hand
- Do not use the charger during a lightning storm.
- Use only the supplied charger to re-charge the battery.
- Do not operate the charger in an unstable, dusty or an excessively damp environment.
- Avoid using the charger under direct sunlight.
- Operate the charger in a well ventilation environment.
- Unplug the charger from the wall outlet when not in use.

#### **Accessories**

! WARNING :

- Ensure you do NOT raise the seat post pass the safety mark etched on the seat posts.
- Ensure that your assembled accessory does not interfere with the steering, braking or the natural movement of the bicycle.

#### **Electric Motor and Battery Features**

*High efficiency and power saving Electric Motor–*

- A Brushless Motor with gears
- High efficiency of up to 85%.
- Efficiency>80%. 36V battery for a continuous run range of more than 50 miles on a single charge in pedal assist mode.
- Can produces a continuous and sustained power of 350 Watt power with a peak of up to 700 Watts.

*High power and high torque –*

- Fast pick up even under heavy load. Easily climb and ascend sloppy terrains.
- Low power consumption, Long-battery life and a Compact design.
- The 48 Volt Battery pack weighs 10 Lbs.

*Trouble-free, Low maintenance, Long life span and Easy to maintain electric motor –*

- High Quality Brushless Electric Disc motor with an advance speed sensor and gears.
- Closed system motor requires only surface cleaning and dry storage.

## **Charging the Battery**

- Connect the battery to the charger; ensure the output terminal of the charger and the input terminal of the battery are firmly connected.
- When the charger is plugged into a wall outlet, the charger LED indicator will turn RED to indicate that the battery is charging
- The LED indicator on the charger will turn GREEN when the battery is fully charged.
- Disconnect the charger from the wall outlet before disconnecting the charger from the battery.
- To ensure long battery life, fully charge the battery for at least twelve (12) hours during the first initial three charges and charge the battery at least once for 4 hours every 2 months
- ! NOTE: Only charge the battery pack using the supplied charger.
- ! NOTE: Always plug the charger onto the Battery pack before plugging the charger to the wall socket.
- ! WARNING: Do NOT charge the battery for more than 24hrs for risk of damaging the battery.

## **Repair and Service**

### **! WARNING:**

- Inspect the bicycle frequently. Failure to inspect the bicycle and to make repairs or adjustments, as necessary, can result in injury to the rider or to others. Make sure all parts are correctly assembled and adjusted as written in the owner's manual.
- Immediately replace any damaged, missing, or worn parts.
- Make sure all fasteners are correctly tightened as written in the owner's manual
- Parts that are not properly tightened can be lost or operate poorly.
- Do not over tighten parts, as over-tightening may damage the part.
- Make sure any replacement fasteners are of the correct type and size.
- Your bike uses an Aluminum Alloy frame. Ensure that the bicycle frame is carefully and frequently inspected; as Aluminum frames can develop micro fractures from stress, severe impact and shocks. If you see these micro fractures or cracks, stop riding the bicycle immediately.
- In case of micro fractures, have the bicycle frame repaired and inspected by a qualified professional before riding the bicycle again.

NOTE: Have a bicycle service shop make any repairs or adjustments for which you do not have the correct tools to or if you do not sufficiently understand the instructions set forth in this electric bicycle's manual supplement or the bicycle owner's manual.

## **Inspection of the Bearings Maintenance**

1. Frequently check the bearings of the bicycle. Have a bicycle service shop lubricate the bearing once a year or any time they do not pass the tests as noted in the Bicycle owner's manual.

## **Serial Numbers to your EG Electric Bike**

1. There are 3 serial numbers that are of importance on your EG Electric Bike. They are the Frame serial number, the Motor serial number and the Battery pack serial number.
2. The Bike Frame Serial number to your EG Electric Bike is located on the underside of the bike below the bottom bracket on the frame.
3. The Motor serial number is located on the side of the motor.
4. The Battery serial number is located near the output posts of the Battery pack.



### **How to detach the rear wheel of the Electric bike**

1. ! WARNING: We do not condone modifying the EG Electric Bicycle in any way shape or form. Modifying the bike in any way, will void your Warranty. The instructions below are written only for the maintenance or repair of the bike.
2. To detach the rear wheel, first unhook the connector near the rear wheel on the right hand side of the bike.
3. Remove the plastic covers over the screws on the rear axle.
4. Unscrew the nuts on both sides of the rear axle and the wheel should come right off.
5. Unhook the chains from the rear freewheel (gears)
6. To install it back on, please note and reverse all the detachment instructions.