

ELECTRIC BICYCLE OWNER'S MANUAL

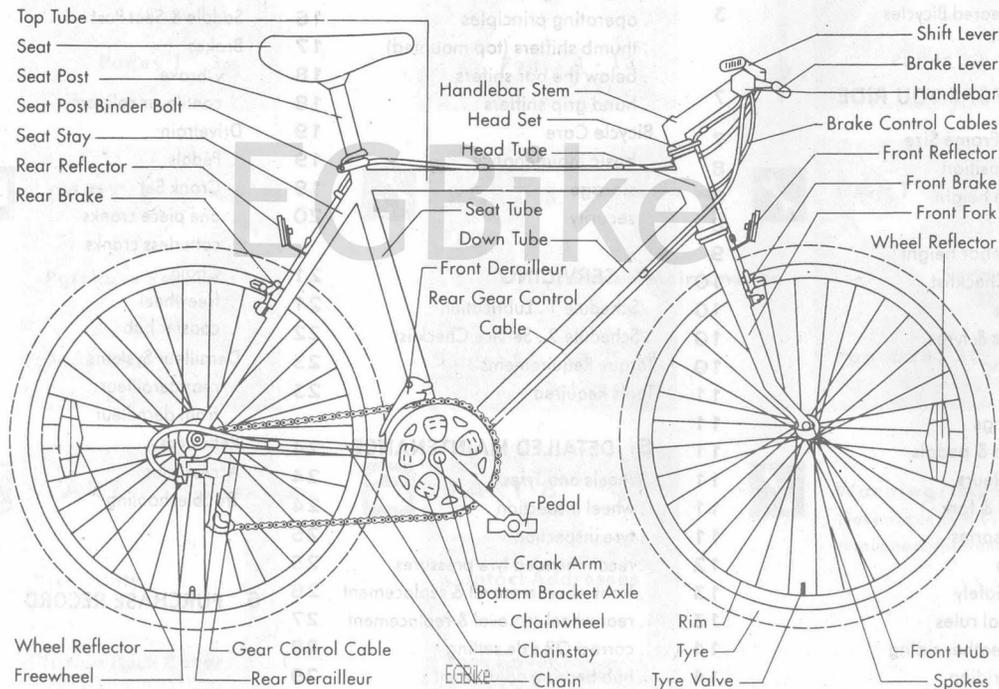
For Owners of EG Zurich 500MX and EG Geneva 500MX Electric Bicycle

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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. Remove the Stem protective cover by loosening the Allen Keyed nut on stem and then Install the handle bar by inserting the handlebar stem into the head tube.
3. Adjust the handlebar by loosening the nut holding the handlebar and then re-tightening it with an Allen wrench.
4. ! WARNING: Do NOT over tighten nut against the fork; for you will risk damaging your suspension fork.
5. The front and rear LED/reflector Lamp runs off the main battery of the bike. They can be turned on/off by clicking the power button on the left side of the handlebar control panel
6. 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 #15 wrench.
7. ! 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.
8. Insert the battery into the battery holder by aligning the battery to the bottom of the battery bracket on the frame and then slowly slide the battery until both the top and bottom of the battery aligns to the frame. When you hear a click this ensures the battery is properly locked into the frame of your bike. Ensure that the battery is locked in by lightly tugging on the battery outward to the left 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, Press the Power Switch on Handlebar controller. To turn “OFF” the flow of electricity to the bike, Press and hold the Power button for 2 seconds on the Handlebar controller.

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 Press the “Power” button on the handlebar controller. Press 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 Press the “Power” button on the handlebar controller. 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 Press the “Power” button on the handlebar controller. 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: Pedal Assist Modes Level 4 and 5 are designed to achieve speeds over 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 discretion is advised.
- 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 and power on pedal assist with speeds up to over 28mph.

2c. Pedal Assist Mode (Level 0)

- Turn on the electrical system to the electric bike by Press the “Power” button on the handlebar controller. 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 Pedal assist is “OFF” and will not function 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.
- ! 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. You do not need to pedal your bike in this mode.
- 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 –*

- Turn on the electrical system to the electric bike by Press the “Power” button on the handlebar controller. And then Press and Hold the “UP” button on the handlebar controller continuously to have the bike assist you on the road or up a hill.
- Walk assist will stop as soon as you release the “UP” button on the Handlebar Controller.

5. *How to operate the Front and Rear LED Lamps -*

- After turning ON the bike’s system, Press the “POWER” button to engage front and rear LED as well as the LCD back light.
- The LED lamps will cycle through 3 functions as you press and release the “POWER” button. 1st click to turn “ON” the LED Lamps, 2nd click to switch into Blink mode, and 3rd click to turn “OFF” the LED Lamps. When turned in ON or Blink modes both front and rear LEDs will behave similarly.
- The rear LED will in addition to the above modes will turn ON Solid, if you depress your brake levers.

About the Brake Safety Feature on all EG 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. This bike’s Rear LED lamp will also light up as long as the brake levers are depressed.

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. In addition, the Handlebar LCD display will also display the current charge voltage of your battery.

To conserve battery power, switch OFF the electrical system by pressing and holding the “POWER” button on the handlebar controller for 2 seconds, when the electric power is not needed.

How to Reset the Trip meter

To reset the Trip1 meter on your LCD hold the “SET” button for 2 seconds. When you see Trip1 press “DOWN” button 2x. Press and hold “SET” button for 2 seconds to exit. The Trip2 is set to show last operation distance and will reset 30 seconds after the the system is turned on. The ODO meter is a total accumulation of the the display unit. “Time” refers to the total time of the current operation that will reset when the display is turned OFF.

! NOTE: You can remove the keys from the bike after locking the battery onto the bike frame. You do not need to leave the key inserted in 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: 14Ah or 672 Wh

Battery and Motor Voltage: 48V

Charge temperature range 0~45°C

Discharge temperature range -20~55°C

Total Charge time from total discharge: 4-6 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 40 miles on a single charge in pedal assist mode.
- Can produces a continuous and sustained power of 500 Watt power with a peak of up to 750 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 Mid Drive motor with an advance Pedal torque 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 2-3 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.

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 at the front of the bike on the frame nearest to where the front fork enters the frame, just above the fork.
3. The Motor serial number is located on the under 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 make sure the system is turned OFF. Then simply remove the rear wheel like a regular bicycle.
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.