IMPORTANT! In order to ensure your safety and get the most out of your product please read this Manual carefully before first use.

www.ecomotionbikes.com | contact@ecomotionbikes.com
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**Warnings**

**WARNING!** Cycling can be a hazardous activity even under the best of circumstances. Proper maintenance of your bicycle is your responsibility as it helps reduce the risk of injury.

**WARNING!** When using your e-bike at the first-time, ride it in a controlled environment away from cars, obstacles, and other distractions.

**WARNING!** Parental supervision is advised for use under the age of 16.

**WARNING!** User must be aware to all traffic laws & regulations prior to using the product.

**WARNING!** Your e-bike is exposed to wear and tear as well as high pressure. Various materials and components may react differently to fatigue, wear or pressure. In case the life expectancy of a certain component has expired, it may fail unexpectedly and even cause injury to the user. Any form of cracking, scratching, discoloration in high pressure areas are indications that the component's integrity has expired and it must be replaced!

**WARNING!** Accidents and falls may cause severe injuries and in extreme cases even death! Read this user manual responsibly, with care and judiciousness! Also, always make sure that your e-bike is well assembled, well maintained, and in a good condition according to this user manual prior to riding!
**WARNING!** Make sure that your e-bike's brakes are well tuned and perfectly work before each ride. Check the brakes' pads before each ride. Brakes' tuning and maintaining must be performed in a bike store, by qualified mechanic.

**WARNING!** Braking distance is influenced by the road / trail condition as well as weather condition, speed of riding & weight of rider.

**WARNING!** This model is equipped with motor shut-off system which controlled by the brakes. Make sure that the system is well operating before each ride. In case the system failed, do not use the e-bike and have it fixed at a certified bike store.

**WARNING!** Cycling can be a hazardous activity even under the best of circumstances. Always use protective gear such as a helmet and other shields as well as closed shoes, even for a short ride!

**WARNING!** Avoid Storing the battery in extreme hot / cold temperature. Extremely low temperature may cause corrosion and extremely high temperature may cause battery swell, which will make the battery dangerous, and even can cause battery explosion! The recommended storage temperature for the battery is between 50°-80°F.

**WARNING!** Do not leave the battery unattended in a closed vehicle! The vehicle may warm up by the sun and reach extremely high temperature!
**WARNING!** Avoid exposing the battery to extreme temperatures (104°F or higher) for prolonged period!

**WARNING!** The battery charger should be checked for physical damage before each charge. Make sure that the charger wire is not torn or exposed and that its electrical plug is not damaged! If you notice any problem with the charger, DO NOT CHARGED the battery with the charger. The charger must be replaced!

**WARNING!** DO NOT charge the battery without supervision! DO NOT charge the battery overnight while all people are sleeping in the house!

**WARNING!** Improper assembly of the bike is dangerous, can cause bike / component failure, resulting in injury to the rider!

It's your duty to contact us for explanation if any of the instructions in this booklet are not clear to you or if you have any question.

It is always recommended to have a professional bike shop for assembling your bike.

**WARNING!** This model designed for road and trails ride only. do not use it for down-hills ride , jumps or decline stairs.

**WARNING!** this model designed for a single grown rider only. It is forbidden to use this bike by two users or more together at the same ride. You may install a child seat on its back-rack, make sure that your child weight not exceed 55 Lbs and that you use the child seat according to its manufacturer’s instructions.
Definitions:

- **PAS** - Pedal Assist Support - a sensor that is located on the bottom bracket, recognizes the pedals movement and operates the motor accordingly to the PAS level which set on the display.

- **TAG** - Twist And Go - a throttle that located on the handlebar activate the motor while it twisted.

Parts location:

Assembly instructions:

1. **Handlebar & Display**:
   - Take-off the stem’s base cover by opening its 4 screws.
• Insert the handlebar into the stem's base, so the handlebar is centered onto the base, and screw-back the 4 screws back into their place. **Important**- tighten the screws in the force so the handlebar will not move sideways or spins under pressure.

![Image of handlebar being inserted into stem base]

• assembled the display in the center of the handlebar by tightening both of its screws.

![Image of display being turned on]

• Adjust the handlebar so it will be aligned with the bike’s fork, then tighten both of the stem's sides screws to lock it into its place.

![Image of handlebar being adjusted]
2. **Headlight & Front fender:**

   - Assemble the headlight and the top hook of the fender to the forks bow.

   - Assemble the fender’s support pipes into the bottom of the fork (from both sides).

3. **Front wheel:**

   - Unscrew the fork support rod from the bottom of the fork, and pull out the plastic spacer from the brake caliper.
• Slide in the lock rod of the wheel into its place in the hub, and close it with its screw nut from the other side.

• Insert and lock the wheel into its place in the fork by closing the lock rod lever.

**WARNING!** The fork must hold the wheel in a way that the wheel does not move to its sides or can be removed without opening the lock - rod lever.

**WARNING!** Make sure that the front wheel turns easily sideways and not jammed while you steering the handlebar. Make sure that the bike's wires and brake tube are not jammed or stretched during steering.
4. **Saddle:**

- Open the saddle's hoop that located on the bike's frame, slide-in the saddle into its place in the frame, and lock-back the hoop. Make sure that the saddle can not turn to the sides or move up & down after you locking it into the frame.

**WARNING!** In order to avoid damage to frame that can lead for frame sudden breaking, always make sure that the safety line that marked on the saddle's tube is hidden from the eye while locking the saddle into its place.

**NOTICE!** For safe and comfortable riding, there should be clearance of no less than 1-2 inches between the rider and the top tube of the bicycle frame, while the rider straddles the bicycle with both feet on the ground.
5. **Pedals:**

- Assemble both pedals to the bike by screwing them to the Crank & pedals leg.

**Brake-sets adjustment**

Make sure that the brake pads are not rubbing or locking the front / rear disc, while you're not pressing the brake-levers.

- In case in which the disc rubs / locked into the brake pads. Release a bit both of the caliper screws (the screws that connect the caliper to the fork), tightly press on the brake - lever and re-screw back the screws into their place while continuously pressing on the lever.
• you can tune the braking power by tightening / releasing of the small Helen screw which located between the brake lever and the handlebar.

**WARNING!** It is highly recommended that the brakes will be tuned and maintained by professional bike store!

**WARNING!** Always check the brakes before using your bike, make sure they are well operate.

**Handlebar height adjustment**

• Release a bit the stem’s base cover by opening its 4 screws.

• Release a bit the stem's bottom screw and one of its sides screws.
• Adjust the height of the handlebar to the desired position and change the angle of it to the needed one according to the new position. Screw back all the screws and re-lock the handlebar.

**WARNING!** After adjusting the handlebar height and before riding the bike, make sure that the handlebar is well-locked in its new position, by strongly pushing it down to the ground.

**Mounting & dismounting of battery**

**Mounting the battery into the bike:**

• Place the battery in its bottom base in the bike, while it is aligned with the bike frame, and its top part is in angle of 20 degrees out from the frame.

• Click-in the battery into its place in the frame.

**Dismounting the battery from the bike:**

• Turn the battery key clockwise and pull the battery out from its lever.
Inspections prior riding:

• Check that the wheels are well connected to the frame / fork, and that they are rotated freely.

• Check that the handlebar aligned with the front wheel, and all the screws are tight.

• Check that there are no loose or missing spokes in the wheels.

• Check that all the bearings of the bike are rotating freely and not damaged

• Check that the brakes are properly functioning, and that their pads are not overly worn.

• Check that tires' air-pressure is same as the one that written on them

• Check that the tires are not overly worn, Worn tires will have no proper road grip

• Check that the wheel rims are not broken or cracked.

• Check that the lights & horn systems are well functioning.

• Check that all components of the bike are well set in their place.

• Check that there are no pressure marks / cracks / discoloration marks on the bike frame and on the front fork.

• Check that there is no visual damage on the bike’s battery.

• check that the battery is properly mounted, and that it locked in the bike's frame.

• Check that the TAG / PAS systems are properly functioning.
Operating of the electric system:

• Turn on the bike by short press on the Power button. The bike is ready for use.

• You can switch PAS speed levels by pressing on the PAS Control buttons (+/-). PAS level "0" - without support, PAS level "5" - strongest support.

• You can use the TAG system any time the display is on.

• By pressing on the SET button you can view the following info: trip duration, trip 1 mileage, trip 2 mileage & total mileage of the bike.

• At any given time, the display will show the following info: battery voltage, battery capacity, current ride speed & current power usage.

• The front light, rear-light & the horn, controlled from the Horn & Lights buttons which located at the left side of the handlebar.

• Turn off the bike by long press on the Power button.
The battery & charger

Type | Li-ion
---|---
Cells | LG
Voltage | 48V
Amperage | 13Ah

**WARNING!**
- Do not perforated or dropped the battery;
- Do not placed the battery near to fire or another heat dispersing element;
- Do not soaked the battery in water;
- Do not placed / use the battery at the vicinity of strong electromagnetic or electrostatic fields;
- Do not crushed or disassembled the battery.

**WARNING!**
Use the battery for its intended purpose. Do not use it for other purposes, such use might be dangerous! Do not crushed or disassembled the battery.
Charging of battery

- Plug the charger to the outlet first and then plug it to the battery.
- While charging the battery when it’s connected to the bike, make sure the bike's display is off.
- The charger red indicator light shows that the battery is in charging process. When the red light turns into green, the battery is fully charged.
- In order to disconnect the charger from the battery, unplug the charger from the outlet first, and then unplug it from the battery itself.

WARNING!
Charge the battery with the original charger only. Using an unoriginal charger is forbidden and dangerous!
**WARNING!**  
Do not cover the battery and the charger during charging process.

**WARNING!**  
Terminate the battery charging process immediately in case in which the battery overheat during charging.  
In such case you must consult us at contact@ecomotionbikes.com or +1(323) 825 - 2518

**WARNING!**  
Do not place the battery and / or the charger near flammable substances during charging.

**IMPORTANT!**  
It’s recommended to charge the battery in full, prior to the first use of the bike.

**IMPORTANT!**  
Batteries work better when they are fully charged. It is recommended to begin riding when battery is fully charged.

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**Preserving of battery's lifespan:**

- make sure you charge the battery in full at least once in every 20 charging cycles

- Do not leave the battery uncharged for more than 24 hours. Battery that was left uncharged for a long time, may reach a state in which it won’t be chargeable

- In case in which the battery won't be in use for a significant time, there is need to disassemble it from the bike and store it in a cool & dry location. Make sure that the storage period won’t exceed 45 days without recharging the battery again.
• Average battery lifespan depends on its use and on its conditions. Even with proper care, rechargeable batteries do not last forever. This battery model will last between 700-1000 charging cycles. A partial charge/discharge counts fractionally against those numbers. Running the battery down halfway and then recharging it completely, uses up to one half of a charge cycle.

**IMPORTANT!**
Turn off the bike’s electric system when you're not riding the bike.

**IMPORTANT!** The battery cells are discharged autonomously, once the battery is left unused for a prolonged period. In cases battery cells are left low charged for a long period of time, their charge cycles and capacity will diminish, and the quality of the battery will be damaged. The battery should be left fully charged if it is not to be used for a prolonged period.

**PLEASE!** Be friendly to the environment! Batteries contain toxic materials, be sure to recycle your old batteries at a local battery-recycling center. Do not throw them into the garbage.
**Tips for proper use:**

- Be aware that the right brake lever controls the rear brake, while the left brake lever controls the front brake.

- Avoid braking using front brake only, as doing so may cause the rider to be thrown forward from the bike. Always use both of the brakes when you’re braking.

- Be aware that the brake range of the bicycle may prolong under certain circumstances (e.g. wet/moist surface, sand, etc.)

- Do not ride your bike in water, puddles, rain, streams, etc., never immerse the bike in water, as the electrical system may get damaged.

- Learn all relevant state laws as well all traffic regulations prior to riding your bike and comply them.

- Always start your ride by pedaling and in low PAS level. In this way you’ll control better the bike.

- Assist the motor by pedaling in uphill climbs

**Bike maintenance:**

- Do not oiled the battery or the motor.

- Oil the bike chain and the metal parts (which are not aluminum) on a regular basis. The frequency of oiling your bike parts should be more frequent in a humid / wet areas.

- Use only original parts. Do not use substitutes parts unless they permitted by Ecomotion Bike. please consult with us about substitutes parts at contact@ecomotionbikes.com. Using substitutes parts without consulting may void warranty.
• The bike should be cleaned using a moist rag only, DO NOT pour / spray water directly onto the bike. After cleaning the bike, all metal parts, should be oiled.

• All of bikes moving components and all bearings, should be cleaned on a regular basis.

• The Bike's brakes and their pads needs to be inspected in bicycle store on a regular basis.

• Inspect the electrical wiring occasionally to make sure no wires torn or damaged, and that all connectors are well connected to each other.

IMPORTANT! Using the bike near to beach exposes it to salt & humidity. The bike ought to be cleaned and oiled more frequently if used in such areas.

For more information regarding our company’s policies including warranty & Liability, please visit us on:

www.ecomotionbikes.com

In case of product malfunction that you cannot solve by yourself according to this manual guide, please contact us at:

contact@ecomotionbikes.com

+1(323) 825 - 2518
## Malfunctions & solutions

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<tr>
<th>Problem</th>
<th>Possible cause</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Speed / range reduce</strong></td>
<td>Low tire air pressure</td>
<td>Inflate tiers to recommended pressure</td>
</tr>
<tr>
<td></td>
<td>Brake pads rubbing against their discs</td>
<td>Adjust brakes and / or caliper</td>
</tr>
<tr>
<td></td>
<td>PAS magnets away from sensor</td>
<td>Attached the magnets to the sensor</td>
</tr>
<tr>
<td></td>
<td>Low battery</td>
<td>Charge the battery full charge</td>
</tr>
<tr>
<td></td>
<td>Battery lifetime is over / shortened</td>
<td>Replace the battery</td>
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<tr>
<td></td>
<td>Ridding conditions (headwind, climbing, etc.)</td>
<td>Reduce range to be expected</td>
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<tr>
<td><strong>No power (display doesn't work)</strong></td>
<td>Burnt fuse</td>
<td>Replace the fuse</td>
</tr>
<tr>
<td></td>
<td>Loos connector</td>
<td>Check all connectors</td>
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<tr>
<td></td>
<td>Rupture wire</td>
<td>Inspect all wires for damage</td>
</tr>
<tr>
<td></td>
<td>Faulty switch</td>
<td>Replace switch and retest</td>
</tr>
<tr>
<td></td>
<td>Faulty controller</td>
<td>Replace controller and retest</td>
</tr>
<tr>
<td></td>
<td>Battery lifetime is over / battery not charged.</td>
<td>Replace / charge the battery and retest</td>
</tr>
<tr>
<td></td>
<td>Faulty display</td>
<td>Replace the display and retest</td>
</tr>
<tr>
<td><strong>PAS system doesn't work</strong></td>
<td>Motor shutdown system operated</td>
<td>Make sure that bake handles in their place</td>
</tr>
<tr>
<td></td>
<td>PAS magnets away from sensor</td>
<td>Attached the magnets to the sensor and retest</td>
</tr>
<tr>
<td></td>
<td>Faulty PAS sensor</td>
<td>Replace the sensor and retest</td>
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<tr>
<td></td>
<td>Faulty controller</td>
<td>Replace controller and retest</td>
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<tr>
<td></td>
<td>Display rupture wire</td>
<td>Replace the display and retest</td>
</tr>
<tr>
<td>Problem</td>
<td>Possible cause</td>
<td>Solution</td>
</tr>
<tr>
<td>---------</td>
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<td>-----------------------------------------------</td>
</tr>
<tr>
<td>Motor runs without using TAG / PAS systems</td>
<td>Faulty PAS sensor</td>
<td>Replace sensor and retest</td>
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<tr>
<td></td>
<td>Faulty throttle</td>
<td>Replace throttle and retest</td>
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<tr>
<td></td>
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<td>Replace main cord and throttle cord and retest</td>
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<tr>
<td></td>
<td>Faulty controller</td>
<td>Replace controller and retest</td>
</tr>
<tr>
<td>TAG system doesn't work</td>
<td>Motor shutdown system operated</td>
<td>Make sure that bake handles in their place</td>
</tr>
<tr>
<td></td>
<td>Faulty throttle</td>
<td>Replace the throttle and retest</td>
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<tr>
<td></td>
<td>Faulty controller</td>
<td>Replace controller and retest</td>
</tr>
<tr>
<td></td>
<td>Throttle button not pressed in</td>
<td>press in the shutdown button</td>
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<tr>
<td></td>
<td>Display rupture wire</td>
<td>Replace the display and test</td>
</tr>
<tr>
<td>Motor make a “drilling” noise and reduce power / shuts off</td>
<td>Low battery</td>
<td>Charge the battery full charge</td>
</tr>
<tr>
<td></td>
<td>Motor gear damaged</td>
<td>Replace motor gears</td>
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<tr>
<td>Charger doesn't charge the battery</td>
<td>Burnt fuse</td>
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</tr>
<tr>
<td></td>
<td>Faulty charger</td>
<td>Replace the charger</td>
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<tr>
<td></td>
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<td>Check a different outlet</td>
</tr>
<tr>
<td>Charger shows s full charge in an unusually short amount of time</td>
<td>Faulty charger</td>
<td>Replace the charger</td>
</tr>
<tr>
<td></td>
<td>Battery lifetime is over / shortened</td>
<td>Replace the battery</td>
</tr>
<tr>
<td>Charger indicator light flashes and not change into red (not charging)</td>
<td>Faulty charger</td>
<td>Replace the charger</td>
</tr>
<tr>
<td>Bicycle has intermittent power</td>
<td>Loose connector</td>
<td>Check all connectors</td>
</tr>
<tr>
<td></td>
<td>Loose fuse</td>
<td>Check fuse connector</td>
</tr>
<tr>
<td></td>
<td>Damaged wires</td>
<td>Inspect all wires</td>
</tr>
</tbody>
</table>