Warning!
In order to ensure your safety and to get the most out of your eBike, please read this user manual carefully before the first use.
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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!
The use of this product is under your responsibility only.

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

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

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

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.

Warning!
Do not use the bike carrying over 270 lbs. in total weight (rider & belongings).

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!
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.

Warning!
Avoid exposing the battery to extreme temperatures (104°F or higher) for prolonged period!

Warning!
Parental supervision is advised for use under the age of 16

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

Assembly instructions:

**Handlebar:**

• Open the handlebar stems lever, and place the stem on the fork’s rod. (The rod is passing through the bikes frame).

• Connect the stem to the top of rod by screwing its top screw into it.
• Adjust the handlebar so it will be aligned with the bike’s fork. Tight-up both of the stem's sides screws, and close back its lever.

**Warning!**
Make sure that the front fork 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.

2. **Headlight & Front fender:**

• Assemble the headlight and the top part 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 wheel’s 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 become "a part of it" well fixed, not moving to the sides and can be removed without opening the lock’s lever.
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 cannot turn to the sides or move up & down after you are locking it into the frame.

5. **Pedals:**

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

**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.
**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 adjust the brake sensitivity by tightening / releasing of the small Helen screw which located between the brake lever and the handlebar.

**Warning!**
Always check the brakes before using your bike and make sure they are well operating.

**Warning!**
It is highly recommended that the brakes will be adjust and maintained by professional bike store!
**Handlebar adjustment**

- Open the stem's lever, adjust the angle & height of the handlebar to the desired position and lock it back into its place by re-closing the lever.

![Handlebar adjustment illustration]

**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 and turn it to the sides.

**Mounting & dismounting of battery**

**Dismounting** - open the battery lock by using its key and pullout the battery

**Mounting** - slide in the battery back to its place and lock it by using its key.

![Battery mounting and dismounting illustration]

**Warning!**
Make sure that while mounting the battery back into the frame, the battery is sliding on its allocated rail, if the battery is misplaced it may get stuck.
Bike inspection 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.
**Turn power on / the display:**

- Turn on / off the battery by pressing on it power button.
- Turn on / off the display power by long press on the **Power** button. (make sure that the battery is on before turning on the display).
- You can switch PAS speed levels by short presses on the **i** button PAS level "0" - without support, PAS level "5"- strongest support.
- Short press the **Power** button will change the display’s shown info
- Long press on **i** will activate the walking mode (the button must be hold pressed, the walking mode will be terminated when leaving the button).
- Long press on both **Power** & **i** buttons will lead to the settings screen options. Short presses on **Power** button browse between the settings. Short presses on **i** button change the setting’s info. In
order to leave the settings screen long press both & buttons.

**Display settings:**

P01: Screen backlight level (1-3)
P02: 0 - Km/h 1- MPH
P03: Battery Voltage (24V/36V/48V)
P04: Sleeping time (minutes for display automatically shuts - off)
P05: PAS levels in use (5 bars / 3 bars)
P06: Wheel diameter
P07: Motor speed sensors (1 for current motor)
P08: Speed limit (input data in Km/h units)
P09: 0 – TAG works immediately, 1- TAG works only after PAS in use.
P10: 0- Bike works with PAS only, 1- TAG only, 2- TAG & PAS
P11: PAS sensitivity
P12: Not in use
P13: PAS magnets (12 PAS magnets used in this bike, default)
P14: Controller A (15)
P15: Battery current voltage

P16: ODO reset (long press on will reset the ODO)
P17: Not in use
P18: TAG speed levels (1-5)
P19: TAG speed limitation: 0 – to the speed limit of the bike (P08) 1- 6mph

**Error symbols**

- Low voltage protection

- Controller failure

- Brake failure
- Throttle failure

- Motor failure

**The battery & charger:**

- Turn on / off the battery by pressing on its power button.

- Turn on/ off the battery taillight by pressing on the light button.
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;

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.

Warning!
Keep away the battery and the charger from the reach of children.

Important!
In case that the electric system is left on, while the bike is not in use for a long time, the battery may reach a state where it is no longer chargeable.

Important!
The distance range of the bicycle in electric mode varies according to rider's weight, road conditions, battery power etc.

Important!
Proper maintenance of batteries, according to this guide will maximize their lifespan and capacity.
Charging of the battery:
• Make sure that the battery is powered-off
• Plug the charger to the outlet first and then plug it to the battery.
• 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.

Warning!
Do not cover the battery and the charger during charging process.

Warning!
Charge the battery with the original charger only. Using an different charger is forbidden and dangerous!

Warning!
Terminate the battery charging process immediately in case in which the battery overheats 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.

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.

**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.
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 area.

• 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 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
<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible cause</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed / range reduce</td>
<td>Low tire air pressure</td>
<td>Inflate tires 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>
</tr>
<tr>
<td></td>
<td>Ridding conditions (headwind, climbing, etc.)</td>
<td>Reduce range to be expected</td>
</tr>
<tr>
<td>No power (display doesn't work)</td>
<td>Burnt fuse</td>
<td>Replace the fuse</td>
</tr>
<tr>
<td></td>
<td>Loos connector</td>
<td>Check all connectors</td>
</tr>
<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>PAS 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>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>
</tr>
<tr>
<td></td>
<td>Faulty controller</td>
<td>Replace controller and retest</td>
</tr>
<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>
<td>-------------------------------------</td>
<td>---------------------------------------------------</td>
</tr>
<tr>
<td>Motor runs without using TAG / PAS systems</td>
<td>Faulty PAS sensor</td>
<td>Replace sensor and retest</td>
</tr>
<tr>
<td></td>
<td>Faulty throttle</td>
<td>Replace throttle and retest</td>
</tr>
<tr>
<td></td>
<td>Wire short</td>
<td>Replace main cord and throttle cord and retest</td>
</tr>
<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>
</tr>
<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>
</tr>
<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</td>
<td>Low battery</td>
<td>Charge the battery full charge</td>
</tr>
<tr>
<td>power / shuts off</td>
<td>Motor gear damaged</td>
<td>Replace motor gears</td>
</tr>
<tr>
<td>Charger doesn't charge the battery</td>
<td>Burnt fuse</td>
<td>Replace the fuse</td>
</tr>
<tr>
<td></td>
<td>Faulty charger</td>
<td>Replace the charger</td>
</tr>
<tr>
<td></td>
<td>Outlet has no power</td>
<td>Check a different outlet</td>
</tr>
<tr>
<td>Charger shows s full charge in an unusually</td>
<td>Faulty charger</td>
<td>Replace the charger</td>
</tr>
<tr>
<td>short amount of time</td>
<td>Battery lifetime is over / shortened</td>
<td>Replace the battery</td>
</tr>
<tr>
<td>Charger indicator light flashes and not</td>
<td>Faulty charger</td>
<td>Replace the charger</td>
</tr>
<tr>
<td>change into red (not charging)</td>
<td></td>
<td></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>

- Error symbols specified on page 17