



USER MANUAL TITAN/FS E-FAT BIKE



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

Table of Contents

Important general information and warnings	3
Main parts location	4
General information	5
Assembly instructions	5-8
Brakes adjustment	8-9
Bicycle prepare / inspection prior to riding	9-11
Operating of bicycle's electric system	12
Tips for proper use	13-14
Bicycle maintenance	14-15
The battery	16-17
Dismounting / mounting of battery from the bicycle	17
Emphases for battery charging	18-19
Preserving of battery's lifespan	19-20
Problems & solutions	21-22
Warranty, liability and company's policies	23

IMPORTANT! It is important that your first ride on your new bicycle is taken in a controlled environment, away from cars, obstacles, and other distractions.

IMPORTANT! 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.

IMPORTANT! Parental supervision is advised for using this product under the age of 16.

IMPORTANT! It is important to be aware of traffic rules prior to using the bicycle.

WARNING! The bicycle is exposed to wear and tear as well as high pressures. 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!

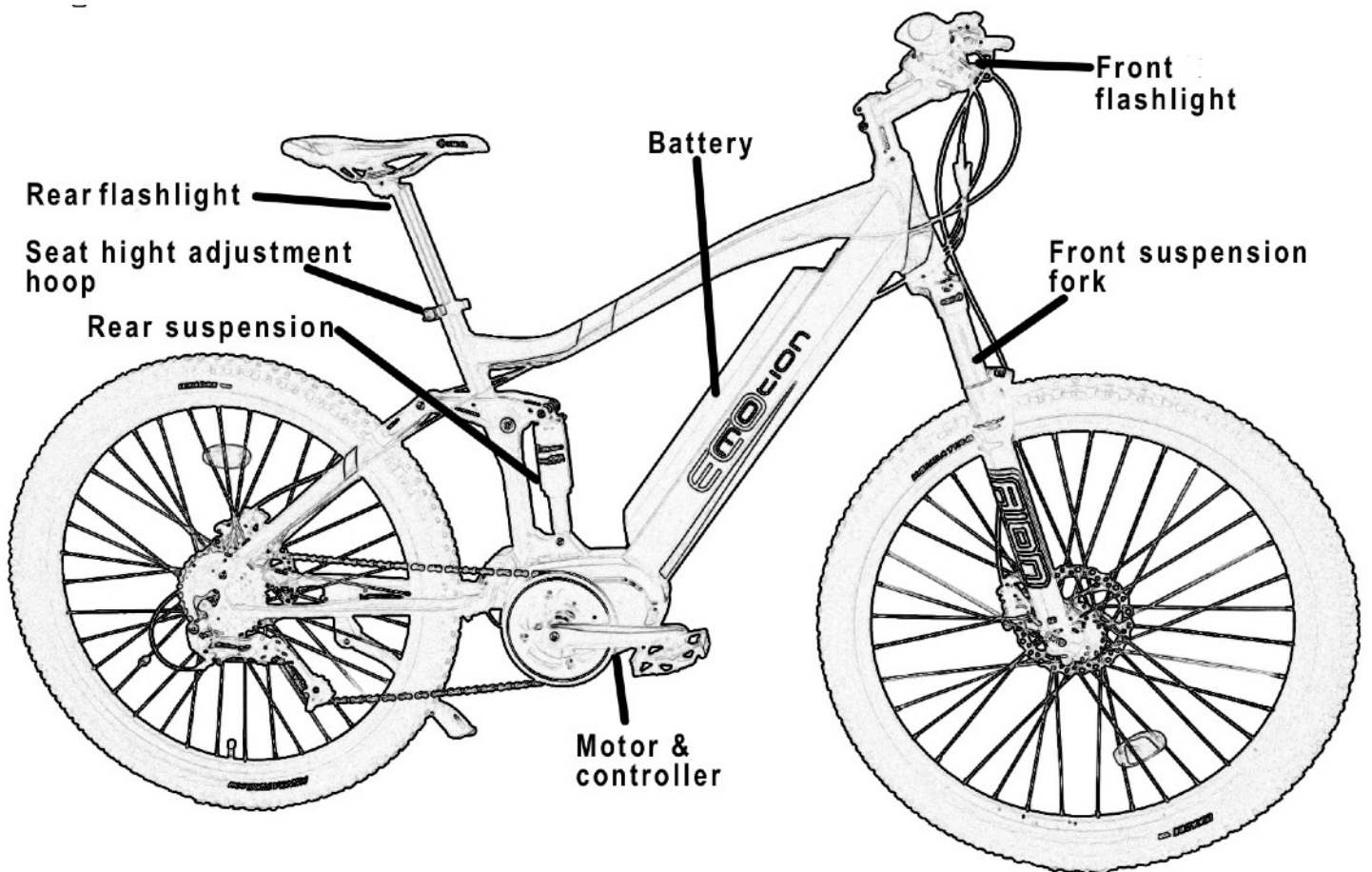
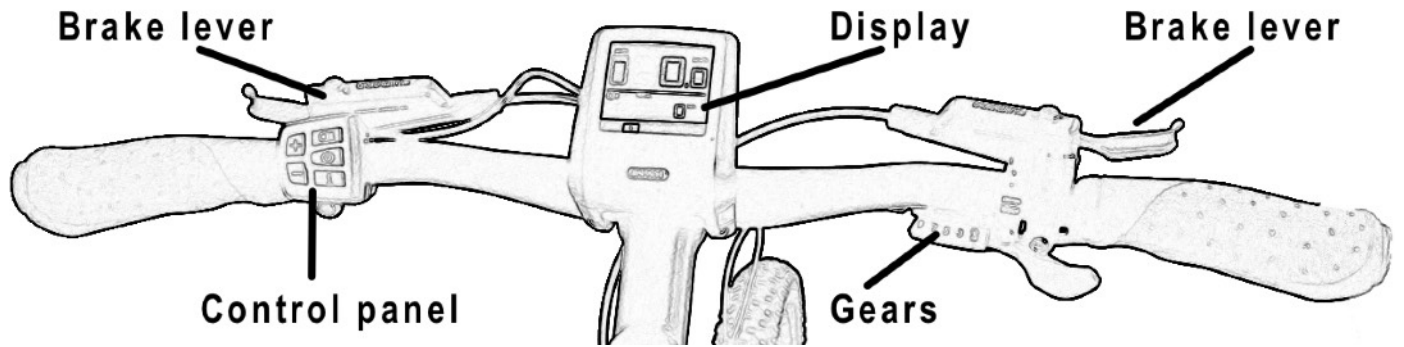
WARNING! Accidents / falls may cause severe injuries and in extreme cases even to death!

Please read this user manual responsibly, with care and judiciousness!

Also, always make sure that the bicycle is in order by using this user manual prior to riding!

Important general information and warnings:

- **PAS** - Pedal Assist Sensor - Sensor which is located near the pedals' axis, recognizes the pedals movement and operates the motor accordingly.



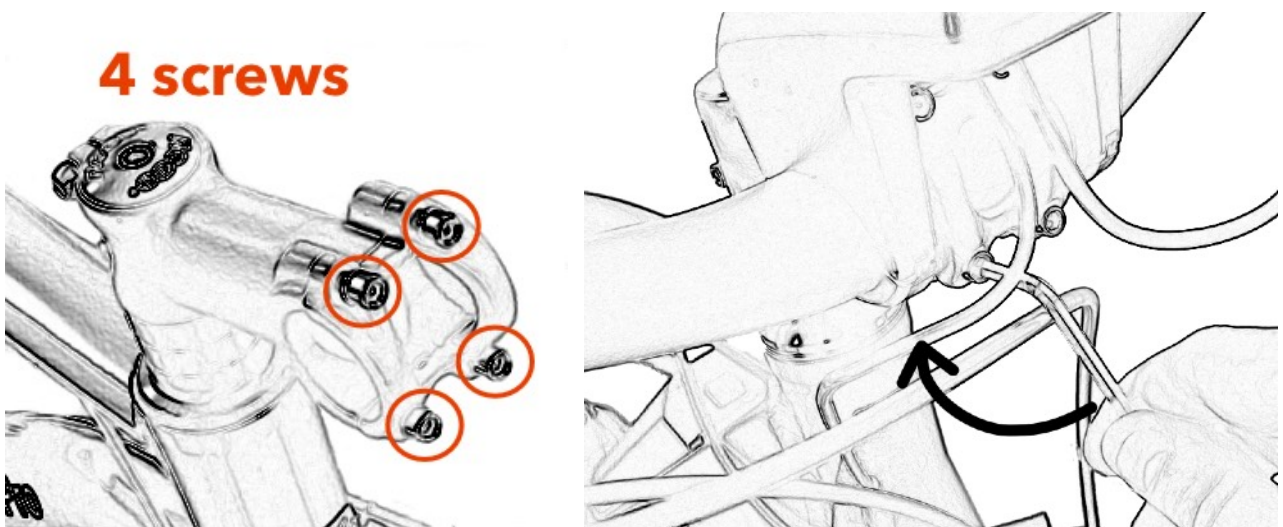
General information:

Weight	54 lbs.
Distance per charge (PAS)	74 miles
Motor	BAFANG 350W Mid-Motor
Battery	LG 36V14.5Ah LiPo
Charger	36V3.5Ah
Input voltage	110V
Power consumption	522Wh
Motor max speed	20 MPH

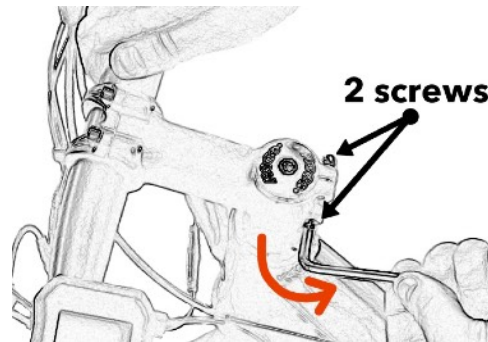
- Based on factory data. The riding range and speed based on 165lbs weight of rider under lab conditions and can vary with each rider.

Assembly instructions:

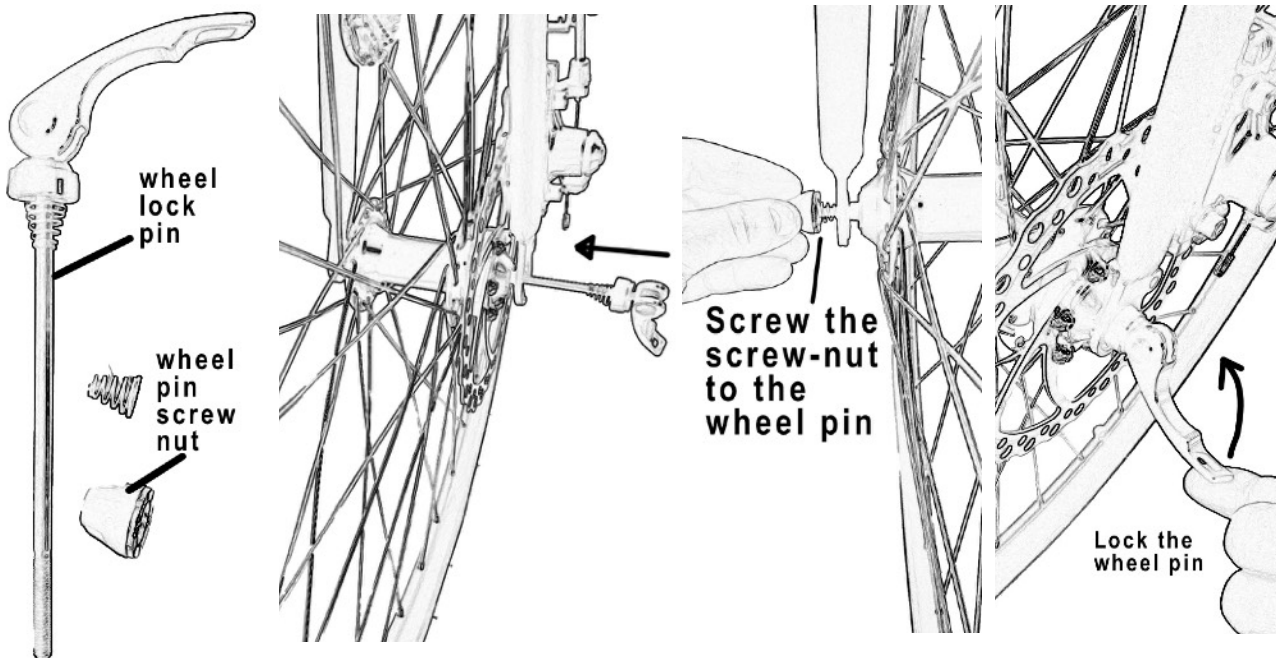
1. Assemble the handlebar into its stem. (4 screws connection). Make sure that the handlebar is well connected and centered.



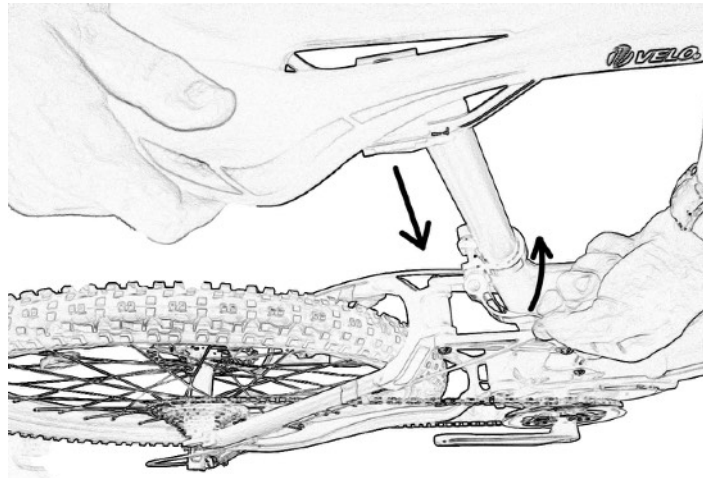
2. Adjust the handlebar so that it is aligned with the bicycle's fork. (2 screws).



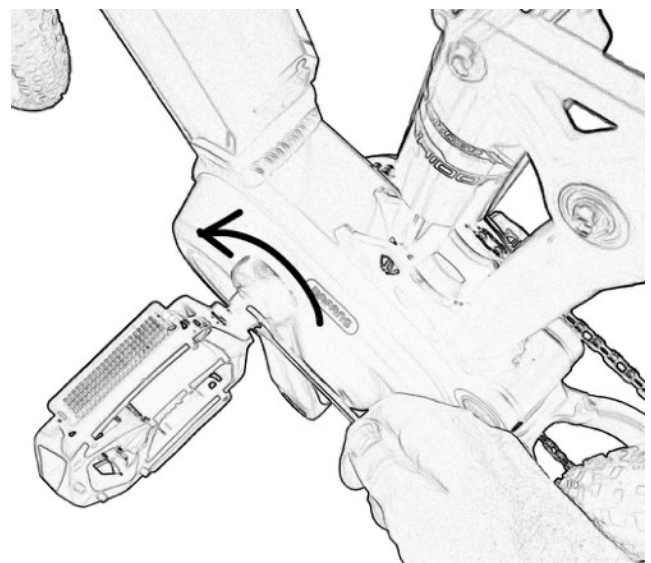
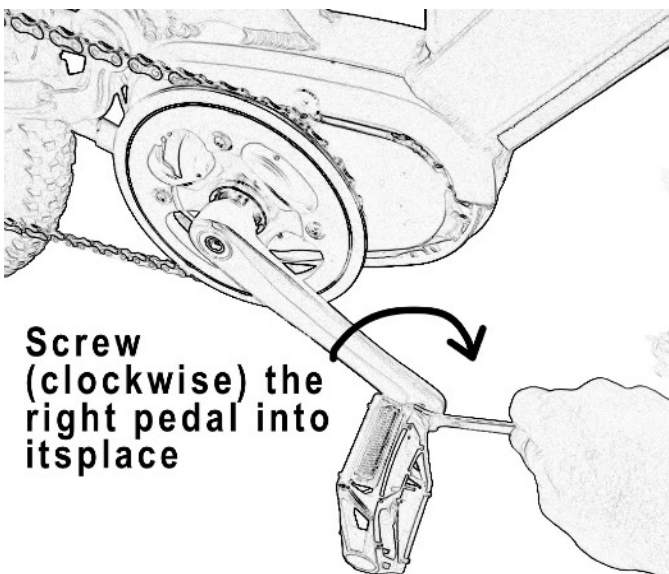
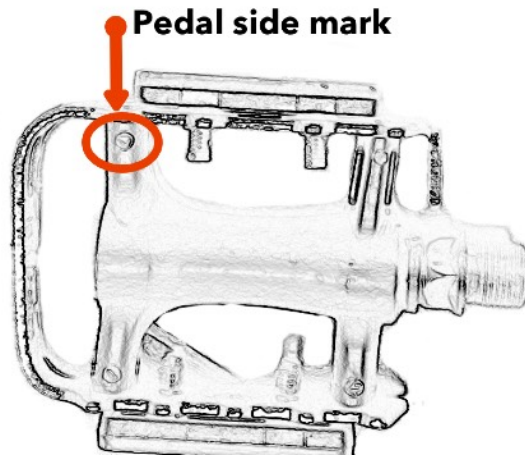
3. Make sure that the handlebars' wires are loose and not tight onto the frame so the handlebar can move freely to the sides without resistance.
4. Assemble the front flashlight into its place on the handlebar. (2 screws).
5. Assemble the front wheel by sliding the "wheel lock pin" through the bicycle's fork intended holes and into its place in the wheel, screw the screw-nut to the pin and lock it.



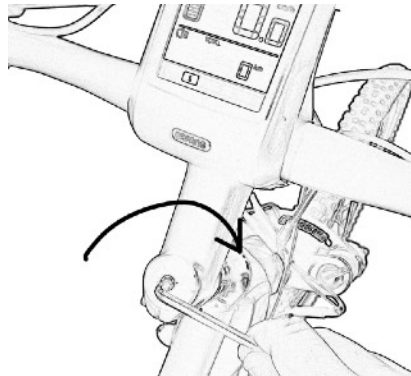
6. Assemble the seat into the frame, and lock it into its place with its hoop.



7. Assemble bicycle pedals

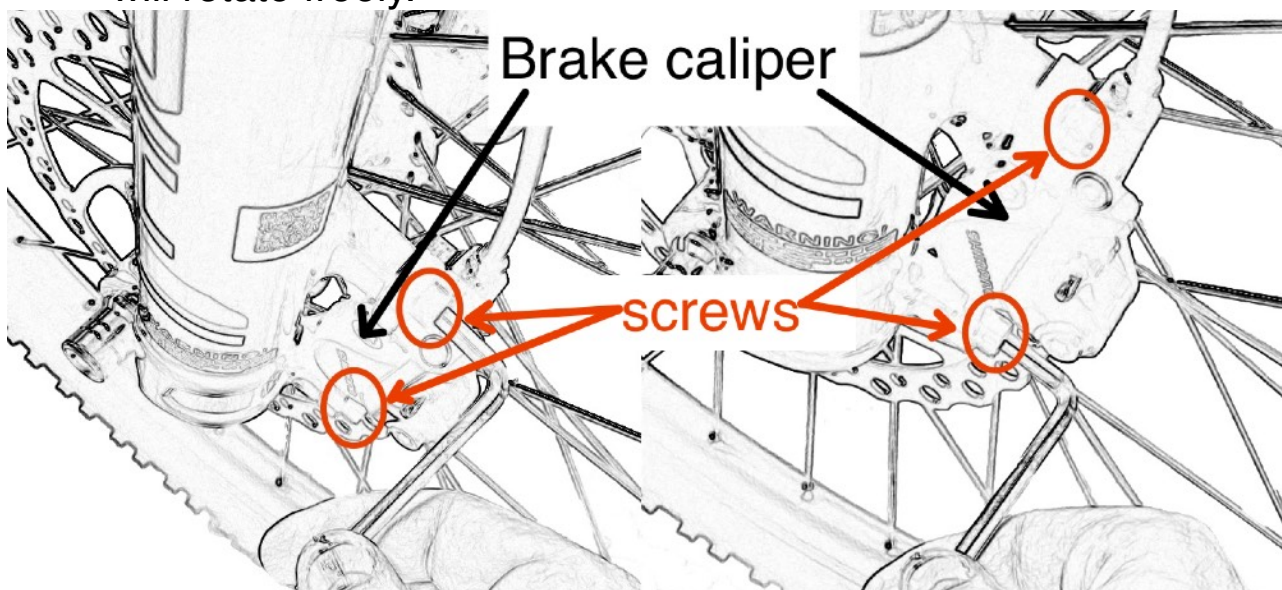


8. Tighten handlebar stem

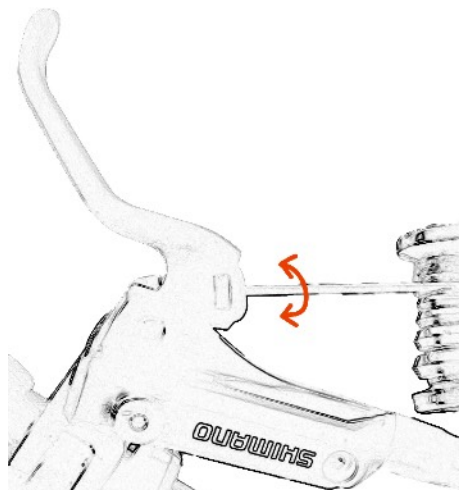


Brakes adjustment:

1. Make sure that the brake pads are not rubbing or locking the front / rear disc, while the brake levers are untouched. In case there is need to adjust the brakes, free the brake caliper (2 screws), and lock it back correctly so the wheel will rotate freely.



2. In order to adjust the softness of brake levers, there is need to tighten / free the screws in their sides.



WARNING!

Make sure that the brakes are fully adjusted & well operated, and that the bicycle brakes properly after the adjustment (pre riding the bicycle)!

It is highly recommended that the adjustment of the brake pads will be performed by a professional with sufficient knowledge or in a bicycles shop!

Notice! This model has a hydraulic brake system.

In such system there is a need to add brake oil from time to time.

Make sure to maintain the brakes in a bicycle store or by a certified dealer.

Bicycle prepare / inspection prior to riding:

- The height of the seat must be adjusted to the height of the user.

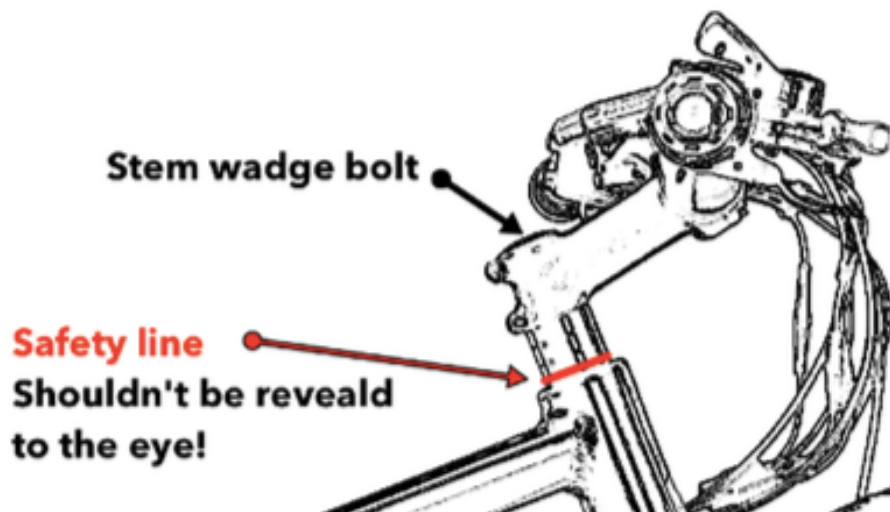
It is recommended to adjust the seat in the way that the user's feet are touching the ground .

Important! – To avoid component breakage, when raising the seat, make sure that its safety line is unrevealed to the eye!



IMPORTANT! 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.

- The height of handlebar's stem must be adjusted to the height of the user. The desired height is the most comfortable height to the user. Important! – To avoid component breakage, when raising the stem, make sure that its safety line is unrevealed to the eye!

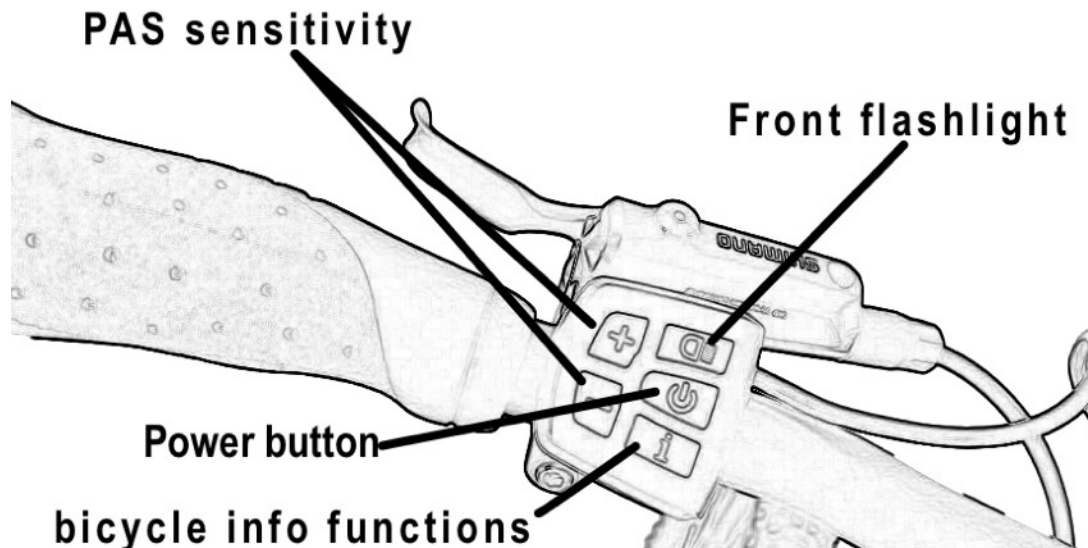


- Make sure that the wheels are well connected to the frame and rotate freely.
- Make sure that the steering system is functioning properly and fully reactive. Also, make sure that the handlebar is adjusted to the user's height and does not exceed the safety line, as well as that the handlebar screws are not loose.
- Make sure that the wheel spokes are tightly screwed and are not loose. And that the wheels are not missing any of them.
- Be sure to check that all of the bicycle's bearings are operating and rotating freely (are not jittery or vibrating).
- Make sure that the breaks are properly functioning, also be sure to check that the brake pads are well operating, and are not overly worn. In such cases in which pads / breaks must be replaced, this must be performed at proper bicycle shop or by a professional with sufficient knowledge.
- Be sure to check that both of tires are not punctured.

- Make sure to check that the tires are not overly worn, as these will have poorer road grip, if tires are overly worn be sure to replace them before using the bicycle.
- Be sure to check that the rims are not broken or cracked if one or both rims are cracked or broken it/they must be replaced.
- The bicycle includes front and rear flashlights & a horn, be sure to check that all of them are functioning prior to riding the bicycle.
- Make sure that all components of the bicycle are well set in their place.
- Make sure that there are no pressure marks or cracks or breakage in the frame.
- Make sure that the tires are properly pressurized, according to the pressure range indicated on the tires.
Low tire pressure will result in lower riding range.
High tire pressure may result in a punctured or flat tire.
- Make sure the bicycle's battery is functioning and any physical pulping or damage does not appear on it.
- Make sure that the battery is properly mounted on the bicycle prior to use.
- Make sure that the PAS system is properly functioning.
- Make sure that the pedals are not broken and are properly attached to the crank, which is properly attached to the axis of the bicycle.
- Make sure that the pedals axis is not bent or deformed.
- Make sure that the gears are properly attached to the bicycle and are not broken or deformed. And that the gears are working properly.

Operating the bicycle's electric system:

- Pressing on the power button in the control panel will start the bicycle's electric system (the bicycle is ready to be driven in electric mode).



- The motor recognizes the pedals movement and operates the PAS system automatically.
- The bicycle can be used as a regular bicycle while the electric system is off.
- Once you are done with using the bicycle, it is important to turn off the electric system.

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

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 the front brake only, as doing so may cause the rider to be thrown forward from the bicycle.
- 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 electric bicycle in water (damp roads, puddles, rain, streams, etc.) and never immerse it in water as the electrical system may get damaged.
- It is recommended to wear a proper bicycle helmet for riding, even if this is not mandated by law in certain situations.
- All applicable laws and regulations should be read carefully before using the electric bicycle.
- You must comply with traffic laws and regulations.
- This electric bicycle is meant for a single user and should not be ridden by two users or more together.
- The recommended carrying weight for this electric bicycle is 165lbs., exception from recommended carrying weight will shorten the riding range per charge.
- This model does not meant to carry a weight of over 220lbs regularly. Such use can cause damage to the motor gears and/or to the battery.

WARNING! Cycling can be a hazardous activity even under the best of circumstances.

Make sure to use protective gear such as a helmet and other shields as well as closed shoes, even for short rides!

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

The battery power diminishes with age (and with usage).

IMPORTANT! Using the bicycle near the beach exposes it to salt & humidity. The bicycle ought to be cleaned and oiled more frequently if used in such areas, to make sure that the components do not rust and malfunction.

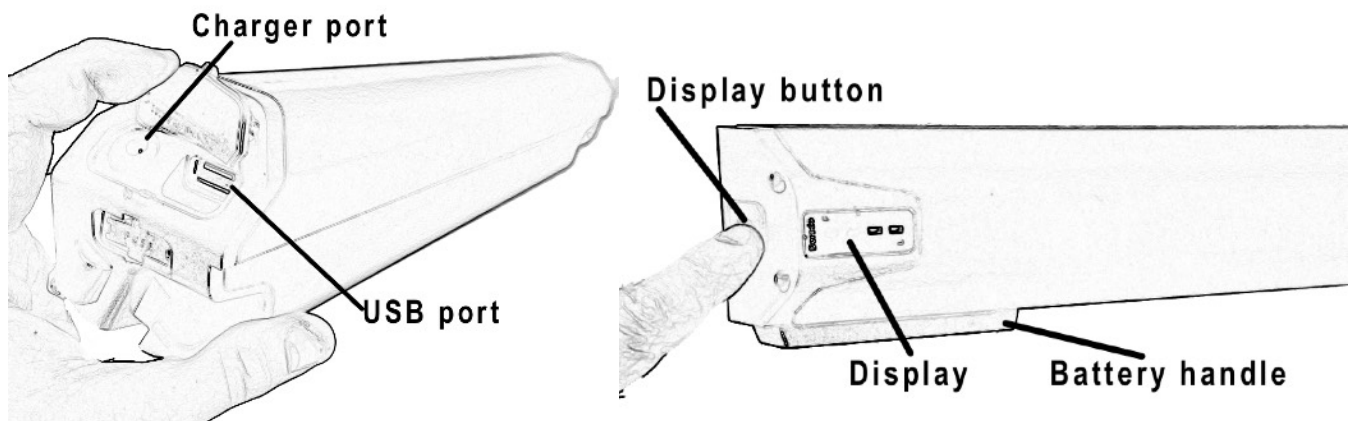
Bicycle maintenance:

- The bicycle's motor and/or battery must not be oiled, opened or punctured.
- The bicycle's battery must only be used for its intended purpose.
- Do not disassemble the display, in case of malfunctioning please see "Problems and Solutions" chapter in this manual.
- It is recommended to oil the bicycle chain and the metal parts which are not aluminum in the bicycle on a regular basis (the frequency of oiling depends on the climate in which the bicycle is used, frequency should increase in damp and humid areas).
- Only original spare parts are to be used in the following components: motor, controller, battery, charger.
However, unoriginal spare parts can be used for: tires, brakes, lights etc.
Nevertheless, be sure to consult with a professional to make sure non original parts are compatible with this bicycle model.
In case consultation is required while warranty period still applies, ask for consultation concerning a specific spare part by sending an e-mail to: Warranty@ecomotionbikes.com.
Using spare parts without consulting may void warranty.

- Make sure that the base of the battery is clean on a regular basis, do not clean while using water!
- The bicycle should be cleaned using a wet cloth only (do not pour / spray water directly onto the bicycle).
After cleaning the bicycle, the metal parts, which are not aluminum, should be oiled.
- All bicycle's moving components should be cleaned on a regular basis.
- Bicycle's brakes and brake pads ought to be inspected in a bicycle store or by a professional on a regular basis.
- The wheel spokes must be monthly inspected, in order to make sure that no spokes are loose or missing, in case spoke(s) is/are loose or missing there is need to replace it/ them using the aid of a professional. Unqualified person may cause deformation of the wheel.
- The electric wiring must be occasionally inspected to make sure no wire is torn, and that all connectors are well adjusted

IMPORTANT! Store the bicycle in a shaded place with no moisture.
Do not store them where it is exposed to rain or poor weather.

The battery:



- This battery model is a chargeable Lithium Polymer battery powered by LG cells.
- It is highly recommended that the battery will be charged in full prior to use.
- You can view the available voltage of the battery at any given moment by using its display, or by using the bicycle's display which is located in the handlebar.
- The battery must not be perforated, and / or placed near fire or another heat dispersing element, and / or soaked in water, and / or crushed, and / or disassembled, and / or be used not for its intended purpose, and / or placed at the vicinity of strong electromagnetic or electrostatic fields.
- All efforts should be made to avoid dropping the battery.
- The battery and the charger should be kept away from the reach of small children.
- The capacity rating of the battery was measured at a temperature of 77°F, any change in this temperature brings about alterations to the capacity of the battery and shortens its life expectancy, especially as the temperature is higher, the life expectancy of the battery is lower, and consequently the electrical riding range decreases

SEVERE WARNING!

Storing battery in extreme hot/cold temperature must be avoided. As this will bring about a decrease in battery quality. Extremely low temperature may cause corrosion and shortening of the battery lifespan.

Extremely high temperature may cause battery inflation and making it **dangerous**, and in most extreme cases cause **battery explosion!**

Recommended storage temperature for the battery is between 32°F - 72°F!

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

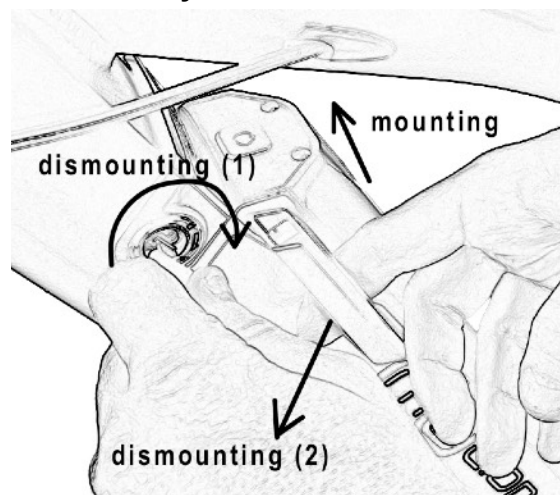
WARNING! Do not leave the battery unattended in a closed vehicle!

The vehicle may warm up by the sun and reach high temperatures!

IMPORTANT! Proper maintenance of batteries, according to this guide, will maximize their lifespan and capacity.

Dismounting / mounting of battery from the bicycle:

- In order to place the battery into the frame, locate the battery in its intended place and click it in.
- In order to dismount the battery from frame, turn its key clockwise and pull it out by its handle.



Emphasis for battery charging:

- The battery must be charged with the provided charger only, any other form of charger is forbidden and dangerous!
- The battery must be charged only when it is in off mode (and not emitting voltage).
- The battery may be charged while assembled to the bicycle as well as when it is unassembled.
- While the battery is in charging, the charger red indicator light is turned on, as the light turns into green the battery is fully charged.
- Before of the charging, in order to avoid circuit shortening, the charger should be first connected to the electrical socket and then connected to the battery.
- In order to finish the charging process, the charger should first be disconnected from the electrical socket and then disconnected from the battery.
- Do not cover the battery and the charger during charging process.
- In case in which the battery overheats during the charging process, the charging should be stopped immediately! In such case you must consult us at warranty@ecomotionbikes.com.
- It is normal for the charger to become somewhat hotter during the charging process.
- Do not place the battery and / or the charger near flammable substances during charging.
- The battery works better when it is fully charged, it is recommended to begin riding when battery is fully charged.

WARNING! The charger should be checked for physical damage. Before every charging make sure that the charger wiring is not torn or exposed and whether its electrical plug is damaged!

In case you notice a problem with the charger, the battery must not be charged until the charger is fixed / replaced!
In case of a defective charger contact your bicycle provider!

WARNING! Never charge the battery without supervision!
Do not charge the battery overnight while all people are sleeping in the house!

Preserving of battery's lifespan:

- It is highly recommended to charge the battery in full immediately as you get the bicycles.
- It is recommended to charge the battery in full within every 20 charging processes at least.
- The charger must be disconnected from the electricity and the battery after the charging process is completed.
- The battery must not be left empty for more than 24 hours, if the battery is left uncharged for too long it may reach a state in which it is no longer chargeable.
- If you know that the bicycle will not be in use for a long period of time, the battery should be charged in full, separated from the bicycle and placed in a cool and dry storage location. In this case the storage time must not exceed 45 days. Upon renewed use of the battery, it is recommended for it be recharged in full.
- 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! 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.

<u>Problem</u>	<u>Possible cause</u>	<u>Solution</u>
Speed / range reduce	Low tire air pressure	Inflate tires to recommended pressure
	Brake pads rubbing against their discs	Adjust brakes and / or caliper
	PAS magnets away from sensor	Attached the magnets to the sensor
	Low battery	Charge the battery full charge
	Battery lifetime is over / shortened	Replace the battery
	Ridding conditions (headwind, climbing, etc.)	Reduce range to be expected
No power while battery switch "on" (display doesn't work)	Burnt fuse	Replace the fuse
	Loos connector	Check all connectors
	Rupture wire	Inspect all wires for damage
	Faulty switch	Replace switch and retest
	Faulty controller	Replace controller and retest
	Battery lifetime is over / battery not charged.	Replace / charge the battery and retest
	Faulty display	Replace the display and retest
PAS system doesn't work	Motor shutdown system operated	Make sure that bike handles in their place
	PAS magnets away from sensor	Attached the magnets to the sensor and retest
	Faulty PAS sensor	Replace the sensor and retest
	Faulty controller	Replace controller and retest
	Display rupture wire	Replace the display and retest

<u>Problem</u>	<u>Possible cause</u>	<u>Solution</u>
Motor runs without using TAG / PAS systems	Faulty PAS sensor	Replace sensor and retest
	Faulty throttle	Replace throttle and retest
	Wire short	Replace main cord and throttle cord and retest
	Faulty controller	Replace controller and retest
TAG system doesn't work	Motor shutdown system operated	Make sure that bike handles in their place
	Faulty throttle	Replace the throttle and retest
	Faulty controller	Replace controller and retest
	Display rupture wire	Replace the display and test
Motor make a "drilling" noise and reduce power / shuts off	Low battery	Charge the battery full charge
	Motor gear damaged	Replace motor gears
Charger doesn't charge the battery	Burnt fuse	Replace the fuse
	Faulty charger	Replace the charger
	Outlet has no power	Check a different outlet
Charger shows full charge in an unusually short amount of time	Faulty charger	Replace the charger
	Battery lifetime is over / shortened	Replace the battery
Charger indicator light flashes and not change into red (not charging)	Faulty charger	Replace the charger
Bicycle has intermittent power	Loose connector	Check all connectors
	Loose fuse	Check fuse connector
	Damaged wires	Inspect all wires

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

warranty@ecomotionbikes.com

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

www.ecomotionbikes.com