

ELECTRIC BICYCLE

USER MANUAL

ALL MODELS

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Congratulations on your purchase of an e-Moto power assist bicycle!

Important:

Please read all information in this manual carefully for your own safety, as well as maximum enjoyment and performance of your e-Moto electric bicycle.

Your e-Moto electric bicycle is designed for on-road use only. Extreme off-road use, jumping, racing, or prolonged exposure to the elements can put the operator at serious risk for injury or death-- and may void your warranty.

If you have purchased an e-Moto electric bicycle that has not been assembled, please consult the specific assembly guide for your model, listed at <http://www.emotoev.com>.

Be sure to review and complete the e-Moto warranty registration card included in this carton, and mail immediately. Failure to file this registration may void or impair your warranty coverage.

Before you begin:

Before you ride your e-Moto electric bike for the first time, it is recommended that you charge the battery for at least 8-hours before use. An initial charge will help condition your battery and allow for optimum performance throughout its life. Please note that your chargers indicator light may turn green, indicating a complete charge, before the conclusion of the 8-hour period. Allow the charge to continue until the full 8-hours are complete. Subsequent charges will be complete automatically, when the light turns to green.

Your Warranty at a Glance:

Frame: 10-years

Major Components: 1-year

Batteries: 2-years



Know Your Electric Bike

Each e-Moto electric bicycle uses common components and controls for operation. Your e-Moto bike may look different than the one pictured above, but the functions and controls are located in similar locations.

All e-Moto electric assist bicycles use chargers that automatically adjust for voltage between 110v - 240v AC. If you travel with your e-Moto bike, your charger will work with any country's wall current.

1. Rear Hub Motor
2. Parcel Carrier
3. Rear Wheel Lock
4. Battery On/Off Switch
5. Charging Socket
6. Optional Throttle
7. Thumb Shift Gear Lever
8. Adjustable Handlebars
9. Fenders
10. Torque Sensor
11. Shimano Derailleur

Range and Performance

Maximum range on a full charge can vary depending on many variables, such as: battery age, terrain, rider weight, temperature, riding style and speed. This chart represents approximate range based on normal road conditions with a rider weight of 176lbs. Maximum range exceeding these figures is normal and not cause for concern.

Battery	Controller	Range	Speed
26-volt 9Ah	VPAC	25-miles	15-mph
26-volt 9Ah	Throttle	15-miles	15-mph
37-volt 9Ah	VPAC	35-miles	15-mph
37-volt 9Ah	Throttle	20-miles	15-mph

Conditions that effect your battery's range:

- Ambient Temperature: Extreme cold and heat can effect the batteries capacity.
- Total Number of Charge Cycles: As the battery ages, total capacity can decrease.
- Wind: Riding into a strong head-wind can decrease range.
- Road Conditions: Excessively rough or hilly terrain requires the consumption of more power.
- Load: Carrying extra weight on the rear carrier or in a backpack will use more energy.
- Operator Weight.
- Repeated Acceleration from a Standing Start.
- Proper Gear Usage: Taking full advantage of the available gears will significantly increase range.
- Poor Maintenance: Under inflated tires, misadjusted brakes, a dry or dirty chain, can decrease range.

Tips for Maximizing Range:

- Charge the battery at room temperature (32-85F)
- Although Lithium Ion batteries have no chemical memory, discharge the battery as much as possible before charging for best performance. Charging a partially full battery will have no negative effects.
- Use the bicycles gears as much as possible when encountering terrain.
- Maintain proper tire pressures and lube the chain regularly.
- Operating temperatures between 40F and 85F will significantly increase range.
- Get your bike a regular (every 12-months) tune up at your authorized e-Moto dealer.

Safety Guidelines

These safety precautions are provided for your personal safety and the safety of those around you. Please review them carefully, and follow their guidance to prevent injury, damage to the product, or impact to your warranty coverage.

CAUTION

- Do not throw the battery into a fire. Do not overheat the battery.



- Do not connect the battery to other appliances other than your e-Moto battery.



- Use only the specified charger to charge the battery.



- Do not take apart or modify the battery.



Disassembly Prohibited

- Do not connect positive and negative terminals by using metallic objects.



(Electrolyte leakage, overheating and/or rupture may result in this type of abuse.)

CAUTION

- Do not Take apart or modify the charger. Do not use the charger to charge batteries other than e-Moto brand.



Disassembly Prohibited



Overheating, fire or electric shock may result.

- Do not subject the charger to shocks, e.g. by dropping. Keep the charger away from water.



- Do not touch the charger with bare skin for long periods during charging.



Burning of the skin may result, as external temperature of the charger during charging may become 40C~60C (104F - 140F)

- Do not cover the charger or place objects on it.



Overheating, fire or electric shock may result.

- Place the charger firmly on a flat dry surface.



Using the charger upside-down or stretching the cable tight may result in malfunction, fire or electric shock.

- Do not short-circuit the terminals by using metallic objects.



Overheating, fire or electric shock may result.

 CAUTION

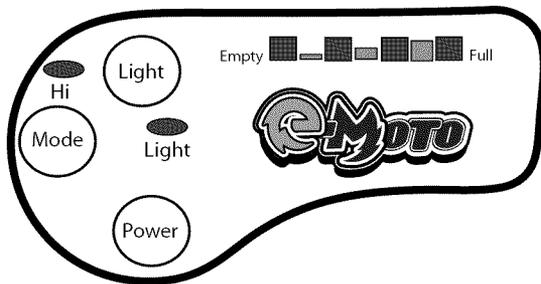
- Keep the battery away from water. Pouring water on the battery may result in short-circuit, overheating or permanent damage of the battery.
- Do not submerge the battery. Soaking the battery in water may cause irreparable damage.

 CAUTION

- Do not apply pressure to the cable or the plug
- ⊘ Placing the cable tightened between a wall and a window frame, or placing heavy objects on the cord or the plug may result in electric shock or fire.
- Be sure to insert the plug securely into a wall socket.
- ⊘ Electric shock and overheating may result, causing fire.
- Do not touch the plug with wet hands.
- ⊘ Electric shock may result.
- Keep out of reach of children or pets.
- ⊘ Electric shock or injury may result.
- Do not attempt to use another make or model's charger to charge the battery.
- ⊘ Overheating, fire or electric shock may result.
- Do not use the charging plug and/or the power source plug when they are dirty, wet or dusty.
- ⊘ Insulation failure due to moisture absorbed in the dust may result, causing fire. Pull out the power source plug and clean it with a dry cloth.
- To remove a cable from a socket, pull the plug, not the cable.
- ⊘ Always pull the charging cable gently.
- Do not rotate the pedals when charging the battery while it is mounted on the bicycle.
- ⊘ The cord may twist around the pedal or the crank, and the damage to the plug may result, causing electric shock or fire.
- Do not apply voltage over the rated value to the charger.
- ⊘ Do not use sockets, connectors and other wiring devices with a power source other than standard rated voltage (AC110-240 volts) power supply.
- Overheating, fire or electric shock may result.

For the performance, safety and enjoyment of your e-Moto power assist bicycle, it is critical that you completely understand the operation of your electric bicycle. Even the most experienced cyclist needs to carefully review these passages. If you have any questions about the operation of the bicycle-- please consult your authorized e-Moto dealer immediately, or contact e-Moto directly, toll free, at 888-443-6686.

The Dash:



The battery level meter, or “dash”, is located on the left side of the handlebars. When the battery is switched on, a series of red LED lights come on to indicate the battery’s status and that the bike is ready to ride.

The dash also features two additional functions. First, the “Power” button serves as an additional on/off switch for turning off the power assist on-the-fly. While in storage, the bicycle should be turned off at the battery.

Second, the “Mode” button on the dash controls two different levels of power assist. In normal mode, the VPAC system provides assistance at speeds up to 10-mph, after which the bicycle relies on human power. Pressing the Mode button until the “Hi” light is illuminated provides additional assistance until 15-mph is reached.

Some models may be equipped with an additional button for a headlight system. If your e-Moto electric bicycle came from the factory with a lighting system, this switch controls it. If your bicycle lacks factory installed lighting-- this switch performs no function.

- If the battery level LED’s do not light when the bike is powered on, verify that the battery is charged and correctly installed.
- If the LED’s are flashing, power assist will not be available. To reset the system, turn off the battery for 30-seconds and then switch back on. If the system does not reset, bring your bicycle to an authorized e-Moto service center for repair.
- If storing your e-Moto bicycle, be sure to turn off the system at the battery.

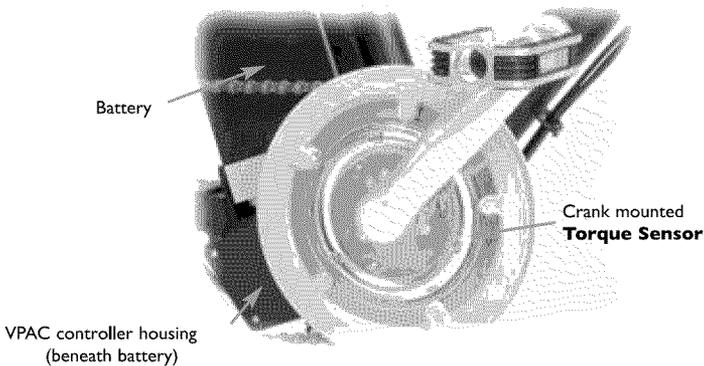
Explanation and operation **of the VPAC power assistance:**

The brains of the e-Moto electric bicycle is the VPAC controller and torque sensor. It is a critical component to the long range and excellent performance of the e-Moto bike.

How it works:

The torque sensor actively measures the amount of pressure that the rider puts against the pedals, and sends that information to the VPAC controller. The controller then processes that information into continuously variable power that is driven from the brushless hub motor. This variable assist can operate from 20-100% of the motors total output. To the rider, this means that as you transition from flat land to an incline, the bicycle automatically applies increasing power to help you over the hill. The torque sensor is mounted within the front crank assembly.

Riders may notice a slight “give” in the pedals during operation. This is completely normal, and is part of the operation of the torque sensor.



e-Moto power assist bicycles also have a throttle available as a dealer installed option. The throttle kit does not replace the torque sensor, but will override its operation when the throttle is twisted. The kit also adds a supplemental charge indicator, in addition to the unit included in the dash.

The throttle option will significantly impact the range of the bike on a charge. The throttle system may also be prohibited by law in your locality. If you are interested in adding the throttle to your electric bike, consult your local authorized e-Moto dealer.

Battery Life:

Approximate Life: If used in accordance with the guidelines contained in this manual the Li-Ion battery has an expected life span of 600-1000 charge cycles.

For Extended Storage: Always fully charge the battery fully before leaving the bicycle unused for extended lengths of time. Recharge the battery every 90-days during storage for optimum battery performance.

Battery Recycling Program:

At the end of your batteries useful life, submit the core battery back to e-Moto for refurbishment. e-Moto will replace the individual cells and electronic components in your battery and return the refurbished unit to you. The spent Lithium Ion cells will then be properly recycled.

Car Racks:

When transporting your e-Moto electric bicycle, it is essential that you use an approved rack. The bicycle must be supported from the wheels, as opposed to being hung from the frame. Critical wiring can become damaged if the bike is hung, and could void your warranty. For a list of approved bicycle racks, contact e-Moto at 888-443-6686.

Additionally, when transporting the bike on a car rack, always be sure to cover the bike to protect it from rain and adverse weather conditions.

Rear Carrier Rack:

On models with a rear rack, be sure that all parcels are securely mounted with no parts interfering with the operation of the rear wheel and chain. Failure to do so may lead to significant injury or death.

Total weight of the load attached to the rear rack may not exceed 35lbs. Never seat a passenger on the rear rack.

Cleaning:

Always keep your e-Moto bicycle clean and dry. When not in use, a storage cover to protect the bike from UV and weather damage is recommended. If your bike needs to be washed, use a soft damp cloth and a non-toxic cleaner.

Avoid using high-pressure water or compressed air to clean your e-Moto electric bicycle. These can force water and debris into sensitive electronic components and can cause a malfunction.

If your bicycle's torque sensor becomes water-logged, and the bicycle will not properly function, dry the sensor with a common household hair dryer.

Removing the Battery:

Unlock the battery using the battery key, in the top keyhole of the battery bracket. Next, tilt the battery toward you until it clears the upper battery bracket. Finally, lift the battery up and out of the cradle.

Reinstallation is the reverse of removal. Take careful note to engage the battery in the two notches at the front and rear of the cradle. Be sure to lock the battery once it is replaced.

Charging the Battery:

- Start by unscrewing the round, chrome cap covering the charger port on the side of the battery case. Ensure that the power switch on the battery is in the off position.
- Insert the low-voltage plug from the battery charger into the round port on the battery, and hand-tighten the locking ring.
- Connect the AC plug from the charger to a wall socket. Avoid using extension cords.
- The light on the charger should now indicate a steady red light while charging. If the light remains green, the battery may already be completely charged.
- A full charge should take approximately 4-hours to complete, at which point the charger should indicate a steady green light.
- When the charge is complete, first, unplug the charger from the wall.
- Then loosen the locking ring from the low voltage plug and remove the plug.
- Hand tighten the cap over the charging port. The battery should be ready for use.

NOTE: You may charge the battery while it is still mounted in the frame of the bike. If doing so outside, ensure that the battery, charger, and power cables are protected from the elements. Failure to do so may result in electrocution, injury, or death.

**e-Moto
Electric Bicycle Warranty
Last Revised June 2009**

Thank you for your purchase of an electric bicycle. e-Moto and our dealers are committed to ensuring your satisfaction with your new bicycle.

Should a question, comment, or concern arise concerning your vehicle, please consult the dealer you originally purchased the vehicle from. Your authorized e-Moto Dealer, or our customer support center, is in the best position to quickly resolve any issues you might have.

Your closest dealer, or service center, can be found on our website at:
<http://www.eMotoev.com>.

Should you have any further questions after having first spoken with your dealer, you may contact e-Moto directly at:
e-Moto, LLC
22165 68th Avenue South
Kent, WA 98032
Phone: (888)44-E-MOTO (3-6686)
info@emotoev.com

When contacting e-Moto, be sure to include the following information:

1. Name, Address, and Telephone number.
2. Year, Model, and VIN Number of unit.
3. Date of Sale, and Original Retailer's Name
4. Details of the matter you wish resolved.

**Limited Liability / Entire
Written Warranty**

No authorized e-Moto, LLC dealer, agent, or employee is authorized to extend or enlarge this warranty on behalf of e-Moto, LLC.

To the full extent allowed by law, the following warranty is the only warranty given by e-Moto, LLC for this vehicle.

Disclaimer of Liability

Except to the extent ratified in the warranty, e-Moto, LLC shall not be liable in contract, tort, or otherwise for any direct, indirect, economic, commercial, incidental, consequential or special loss or damage or expense or claim howsoever caused, arising in connection with the sale, use, loss of use, performance or non-performance of the vehicle (including, without limitation, expenses and liability to any other person).

Notice to Consumers

The terms contained in this written warranty are not intended to limit, modify, take away from, disclaim or exclude any warranty or protection guaranteed by law. To the extent that any applicable law prohibits any term contained in the warranty, such term shall be severable and deleted from this warranty.

TO QUALIFY FOR THIS WARRANTY:

The owner should obtain from the authorized e-Moto, LLC dealer from which the vehicle was purchased a signed copy of the Warranty Registration Form, and the appropriate owner's manual for the model and year purchased. The sales registration card must be completed and mailed to e-Moto, LLC within one (1) week of delivery of the vehicle to the original purchaser.

IT IS THE OWNERS RESPONSIBILITY TO:

Ensure, at her/his own expense, that the vehicle has had all routine maintenance and care outlined in the user's manual.

IMPORTANT NOTE: Your copy of the Warranty Registration form serves as your identification document for Warranty Claims, and must be presented to the dealer to obtain service.

e-Moto Electric Bicycle Warranty

e-Moto, LLC offers the following limited warranty on each new e-Moto Electric Bicycle (hereinafter "vehicle") prepared and sold in the United States that is registered and normally operated in the United States.

e-Moto, LLC warrants that, under normal use and maintenance, each new vehicle will be free from defect in material and workmanship for a term of no more than one (1) year. Batteries and frames are exempt from the above provision and are warranted to be free from material defect and workmanship for the term of no more than two (2) years from the date of original purchase. Frames are warranted to be free from material defect and workmanship for the term of no more than ten (10) years.

For a vehicle, which is used as a demonstrator by an authorized e-Moto, LLC dealer, the applicable term of the warranty begins the first day the vehicle saw use as a demonstrator. Any remaining segment of the warranty term that is still valid may be transferred to a subsequent retail purchaser subject to the terms, limitations, conditions, and exclusions contained in this warranty.

THE WARRANTY IS SUBJECT TO THE FOLLOWING TERMS, CONDITIONS, LIMITATIONS, AND EXCLUSIONS:

e-Moto, LLC WARRANTY OBLIGATION

If any defect should be discovered in this vehicle within the warranty term stated above, e-Moto, LLC's will have the defective part repaired or replaced at e-Moto's discretion, with a new part or its equivalent, when e-Moto, LLC verifies and acknowledges that such defects are attributable to a faulty material or workmanship from the time of manufacture. All parts replaced under warranty immediately become the property of e-Moto, LLC and, if requested, must be returned at the customer's or dealer's expense. The vehicle owner is responsible for any repairs or replacements that are not covered under this warranty. Additionally, e-Moto, LLC reserves the right to charge a deposit for certain major systems replaced under warranty until those parts are returned and verified for failure.

EXCLUSIONS – ITEMS NOT COVERED BY WARRANTY

This warranty explicitly **DOES NOT COVER** the following:

- (1) Normal maintenance services, including without limitation, adjustments to brakes.
- (2) Any part of the vehicles paint or other finishes.
- (3) The replacement of normal wearing parts, including without limitation, all rubber parts (except motor oil seals), gaskets, light bulbs, lenses, wires, cables, fuses, tires, tubes, brake linings, hardware, hoses, and plastic parts.
- (4) Any vehicle that has been used for competition, racing, or rental.
- (5) Any repairs or replacements required as a result of accident or collision.
- (6) Any repairs or replacement required as a result of misuse, negligence, abnormal or insufficient care.
- (7) Any repairs or replacements required as a result of modifications or alterations made to the vehicle including, without limitation, the installation of performance accessories
- (8) Any repairs or replacements required as a result of the use of parts or accessories not approved by e-Moto, LLC.
- (9) Damage resulting from the failure to operate the vehicle in accordance with the operating instruction in the e-Moto Owner's Manual.

(10) Any repairs or replacements required as a result of the vehicle not having received, during the warranty term, the service inspections prescribed in the e-Moto Owner's Manual.

(11) Any Vehicle that has been used for purposes other than what it was designed.

(12) Any vehicle that has been operated by anyone under the age of 16, or the minimum age prescribed by local law for operation.

(13) Any vehicle that has had its load capacity exceeded of either weight or persons.

(14) Any and all shipping damage is not a responsibility of the manufacturer, and must be pursued with the shipping company at the dealer's expense.

Warranty Claim Instructions

To submit a claim to e-Moto, LLC for warranty approval, you must first completely fill out the warranty approval and claim form. If one is not available to you, please call e-Moto, LLC immediately for a replacement. Once completed e-mail or fax the claim to e-Moto, LLC and wait for confirmation and approval.

PLEASE NOTE: Any warranty claims ultimately deemed fraudulent by e-Moto, LLC will be charged back to the claimant on file.



Thank you for your purchase of an e-Moto Power Assist
Bicycle.

Our goal is 100% customer satisfaction.

If you have any questions or issues with your new electric
bike-- or if there is anything we can do to improve your
ownership experience, please do not hesitate to contact
e-Moto.

Our technical and support staff is ready to assist you.

e-Moto, LLC
22165 68th Avenue South
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1-888-443-6686

<http://www.emotoev.com>