Warranty Certificate

- The warranty is valid for one year from the date of purchase, and covers the bicycle frame, battery, drivetrain, and the electrical system. The warranty applies only for production defects and does not cover negligence nor misuse.

- The warranty does not cover the tires, alloys, spokes, seat, chain, nor brake pads. Aero e-bikes does not warranty cases of use that exceeds the manufacturer's instructions, careless driving, misuse, or normal wear on the tires. The manufacturer is not responsible for damage caused to the bike, or one of its parts due to improper use, use of unoriginal parts, damage caused by a fall or accident, nor intentional harm.

- Repair covered under the warranty will be done at your closest Aero facility, or designated repair shop. The customer carries the responsibility of bringing the bicycle to the local facility along with any associated shipping charges.

- The rear rack is not suitable for carrying children or adults. Aero E-bikes is not responsible for any direct or indirect damage or injury caused by carrying children or adults.

WARNING: Do not make any alterations to the electrical system, open the battery casing, nor the controller box. Any such action voids warranty coverage.

AERO

User's Guide and Operator Manual

Apex| Z250 Sport| Mach 5|Z250 Rider

Contents

Problem	Possible cause	Solution
Noise during gear change	Gears wire may be worn or damaged	You can make a subtle adjustment in gear orientation by rotating the nut located at the end of the gear cable.
While pedaling, the bike does not move.	Pedal sensor is not activating	**Verify PAS is set to ON** Please visit a service station
Loud noises from the engine housing	• Abnormal wear of chain (connected to gears in engine housing) • malfunctioning sensor • Engine cable rupture.	Please visit a service station
Abnormal slipping	• Worn tire • Dry tire • Driving on dirt roads with thorns.	• The tire must be replaced • The tire must be replaced • Make sure you are travelling on clean, paved roads
The battery does not go all the way into the tracks or is not removable	Key on activated position	Switch the key to off position
Broken rack	65LB weight limit exceeded	Please visit a service station
Limited driving range	• Low tire air pressure. • Partial charging or damaged charger. • Battery left without prolonged use. • Very mountainous route; High total weight.	• Adjust tire for normal pressure • Discharge the battery to the end and charge the battery to full capacity • Replace Battery • Assist with pedals
• The wheels do not stop • Longer braking range than usual.	• Torn or damaged brake line • Friction pads worn • Oil leakage (hydraulic restraint models)	• You can make subtle adjustments in the direction of the brakes by rotating a nut located at the end of the brake cable carrier. if the problem is not resolved contact a repair lab
Noise from the drive wheel (crank)	• The drive wheel is crooked (from a fall), water may be entering the center of the axle.	Please go to a service station

Common Problems and Solutions

Problem	Possible cause	Solution
The bike doesn't turn on.	• Battery not on • Uncharged battery • Battery connection loose or unsecure • The key is not fully on	• Turn on the battery • Charge the battery • Check battery connector. If not, • please go to a service station • Rotate the key to the on position
The bike lights up, but the engine does not kick in **Verify PAS is set to ON**	• Disconnect or rupture in engine capacitor • Faulty pedal sensor • Disconnect or short in the wires of the brake handle.	• Please go to a service station • Please go to a service station • Handle must be returned to place • Please go to a service station
Noise during braking	• The pads are worn • Rotor(disc) dirty / rusty • Unintended braking	• Brake pads must be replaced • Rotors must be cleaned with brake cleaner
Battery not charging	• The charger is not connected properly. • Burnt fuse. • Faulty battery wiring or impaired contact.	• Please visit a service station

Electric Bikes – General

Thank you for choosing us at Aero E-Bikes, working to innovate the standards of cycling!

Our electric bicycles are manufactured under strict supervision to meet USDOT and EU standards

Before use, it is particularly important to read the user manual presented in front of you.

Please note that this product is intended for users aged 16 and older.

Please reference local laws for required licensing and limitations on street use.

It is necessary to ride with closed-toed shoes and a helmet for your own personal protection.

Traffic laws can be referenced on your local jurisdiction web site.

Instructions for using electric bikes

Before each drive, please ensure that the handlebars, seat, wheels, and battery are secured tightly and intact. Please ensure that all restraints are tightly secured, reflectors are in place and clean, and tires are properly inflated before use.

Riding Instructions

It is mandatory to wear a helmet when operating this product. Please follow all traffic rules in accordance with your local and state and jurisdictions.

The engine is activated while operating the pedals, or while operating the throttle switch on the right handle. To stop, press each brake handle simultaneously whilst not pedaling.

First Use Guide

These bicycles are intended for use and riding in urban road conditions and only on paved surfaces. Riding in sand or rough terrain may cause damage to the bicycle and is not covered under the manufacturer warranty. Proper care and storage of the frame, battery, and hinges to is necessary for longevity, safety, and reliability.

It is forbidden to make a structural change or change in the electrical system of the bicycle.

- The bike is not designed for the carrying of another person. Park your bike under a protected structure in case of rain and avoid riding in the rain when possible.
- Cleaning the bicycle without water by dry cloth is encouraged. Do not allow water to penetrate the electrical system.
- The total allowable maximum load is 265LBS.
- Before starting assembly, please read the instructions carefully.

Before the initial ride:

- Ensure the bike is charged fully, using the LED indicators
- Ensure all screws are securely tightened, hinges fastened, lights are attached, and tires are inflated properly.
- The traffic regulations and safety rules for the use of bicycles must be recognized by the rider
- **NEVER CHARGE THE BICYCLE BATTERY UNATTENDED**

During use, ALWAYS wear a helmet.

When riding in the dark, turn on the road lights (front/back).

If damage exists to the bicycle components, or any brake problem is observed, it is forbidden to ride the bike as it must be brought in for technical inspection.

Pedal Assembly (Pedals)

The pedals are marked with the symbol designating L/R, referenced from the normal riding position (face to direction of riding.)

The pedals are always fastened towards the riding path. The left pedal is a reverse thread screw and must be fastened in the opposite direction than usual. Always close the pedals towards the direction of travel.

Using gears.

On the handlebars, located on the right side of the gear shifter, is the gear stalk. Turn the handle only while pedaling. Pedaling activates the rear motor, changing the position of the chain in relation to the 6 or 7 gears, and allowing for a change in the power transfer ratio (torque) as needed.

Front and rear shock absorbers

The front fork has a shock absorber for smoothening the ride. Some models allowing for locking of the dampeners.

Fully dampened models have a shock absorber in the central part of the chassis.

Setting handlebar height:

You can adjust the height of the handlebars by releasing the quick release latch that connects them. Pay attention not to remove the rod beyond the mark on the handlebar. as drawing it out beyond the limit can lead to a crack in the handlebars.

Assemble the front and back wheels

1. The front wheel is assembled by inserting the wheel hinges into the sockets on the front fork.
2. Use the screw to tighten the hinge to the fork. The nut must be tightly fastened. Please make sure the screw is tightly fastened to avoid injury.

Please ensure that the rear hinge is tightened, and chain tension is sufficient before riding to avoid injury. The chain should be loose enough so that you can move it by pressing with your finger, about 15 mm. When tightening the hinge, make sure the wheel is centered within the chassis.

Using restraints (brakes)

The bike is equipped with “disc” type brakes. The handle lever on the right controls the rear brake, while the left handle lever controls the front brake.

When braking, the torque of the bike will persist to concentrate on the center of gravity of the machine, pushing it forward. Since the center of gravity is higher than the forward swing wheels, the rear wheels "lift" and increase the pressure on the front wheels. To counteract, push your body weight back or balance the rear brakes.

Therefore, it is important to use both brakes, while applying more pressure to the front brake than on the rear**.** This reduces slippage.

To ensure safety, please perform these steps before each trip:

1.Check lighting integrity, brake operation, and emergency engine stop operation during braking (holding both front/rear).
2.Ensure proper tire pressure (recommended air pressure indicated on the tire in PSI). Low pressure reduces the range of travel and can lead to instability.
3.Ensure front and rear hinges are secure (shown below). Check the integrity of the alloy wheels for any bends or cracks. In case of a bent, damaged, cracked, or broken wheels, do not use the bicycle.
4.Make sure battery is adequately charged.
5.Check the braking system to ensure free rolling of the wheels when the brake handles are released.
6.Check and tighten the seat bar, handlebars, and folding hinge to ensure they are fully secured.

- LCD Monitor

1. The power button starts the bike and changes drive modes. A long press turns the system on, while another long press turns off the system. Each short press raises the drive mode by one level.
2. Drive mode adjustment switch: A short press lowers the drive mode by one level. A long press turns on the monitor lighting, and another long press turns off the display lighting.
3. Speed/Pedal drive modes. 5 modes: 1 being the lowest speed, 5 being the highest speed.
4. Displays current speed.
5. Battery Status Viewer: Each rectangle represents 20% of the battery, when there are no rectangles, battery status is between 0% and 20%
6. Travel distance display mode: ODO (general travel distance), Trip (last drive distance.)
7. Driving distance.
8. When the (!) sign is illuminated, A System malfunction is present. Do not use the bike to get to the service station. (See Codes and faults table)

Fault table:

Fault Code	Malfunction	Solution
1	Engine sensor malfunction	Please contact a service station
2	Throttle fault	Please contact a service station
3	Controller Fault	System must be turned off and on
4	Battery level too low	Turn off the system and charge the battery
5	Voltage Protection	System must be turned off and on
6	Engine load protection	System must be turned off and on
7	Brakes on	Please check if the brake cable is stuck
8	Communication fault	System must be turned off and on

Bicycle Assembly Instructions

Assembling the handlebar

1. The handlebar enters the steering bearings, inside of the bicycle skeleton. Be sure to insert the rod deeply into the slot, ensuring it is fully seated.

2. Please make sure that you cannot see the embedded marking on the rod, ensuring a deep and secure insertion of the handlebar to the frame.

3. Tighten with an Allen key after checking that the handlebars are aligned in relation to the wheel.

Charging faults

1. **If the LED charging light does not work, or blinks**: Check that the connection to the wall socket is secure, and that the cable coming out of the battery charger is connected. A charging fault, and flashing LED lighting can stem from worn charging tools or a reverse in the polarity of the connection.
2. Do not use a charger from another battery, as it may not be compatible
3. When the green light is solid, the battery is fully charged
4. If a burnt or strong odor occurs during charging, seize charging immediately
5. If the charging cables are worn or exposed, or the socket contacts/plugs are loose, do not use the charger as it must be repaired or replaced. Do not attempt to fix charger malfunctions alone.
6. It is forbidden to change the structure of the charger's electronic circuitry. Do not attempt to charge batteries other than the electric bicycle battery with the included charger.

- LCD Monitor

1. Power button: a 3-second-long press turns the system on and off; a short one-second press turns the back light on and off.
2. Trip data button: trip speed and average speed.
3. PAS decrease button: short press reduces PAS by one
4. PAS increase button: short press raises the PAS by one.
5. Distance Traveled View: ODO (General Distance Traveled), Trip (Last Drive Distance)
6. Display of speed/Pedal assist modes (PAS): 4 modes from ECO (low assist), to TURBO (strong assist)
7. Displays current speed.
8. Battery Status Viewer: Each rectangle represents about 20% of the battery.

The images displayed may differ slightly from your specific model.

Use and cycling

Tips for safe long-term use.

1. To optimize range, and maintain both engine life and system integrity, pedaling must be used at the beginning of acceleration.
2. Accelerate gradually using the pedals to maintain engine and battery life.
3. To increase rider safety and optimize battery life, avoid emergency braking and acceleration as often as possible.
4. The motor controller protects the engine and electrical system from over-current. In an unusual load, the controller will disconnect the power flow to prevent damage and resume the current back to normal levels when allowable.
5. Maximum carrying weight is 265 LBS. Total combined weight of the cyclist and cargo may not exceed 265 LBS.
6. **Important!** – Braking distance is extended when braking on a damp/wet surface
7. The rack is intended to carry objects not exceeding a weight of 65 LBS. The rack is not suitable for carrying children, or adults.
8. The bike is not designed for towing a trailer.

Avoid attempts to exceed 20 MPH for rider safety and to maintain a proper stopping distance.

Tips for parking your bike.

1. While moving the bike on foot, turn off the power switch to prevent the bike from making unexpected movements.
2. It is recommended to park your bike under a roof and in a closed, dry area. Be sure to lock your bicycle, turn off the main switch, and remove the key to prevent theft.
3. Be sure to follow local ordinances in proper parking

Instructions for using a Smart Li-ion Battery Charger

- The Aero smart charger is optimized for charging the electric bike's battery.
- The charger charges the battery on a fast charge. After the charge is complete, the battery stops charging to prevent overcharging the cells.
- The charger is protected from over-flow, overheating, and shorts.
- The charger is not suitable for charging other electric bicycle batteries, or batteries in general.
- This charger in unique to this product.

Use of the battery charger is not recommended under the following conditions

- Charging near liquids, gases, or corrosive/flammable materials.
- Do not place the charger while active on a flammable surface such as the bicycle seat, wooden floors, or fabric/plastic surfaces
  If the room is not ventilated, or the battery has been covered with clothing or other objects, blocking the vents.
- In the immediate vicinity of heat sources such as an oven, gas burner, heat distributor.
- In humid surroundings such as a bathroom, laundry room, warehouses, shelters, or outdoors.
- Do not charge the battery in a place accessible to children or babies as fatal injury can occur.

Indicator light

1. Green LED: The charger is connected, and battery is full. Not charging.
2. Red LED: battery charging. Not full.
3. Blinking Red LED: battery or charger malfunction.

If there is no light at all, then the charger is either malfunctioning or not properly connected

Maintaining your battery/Range saving tips

- **Avoid** braking and frequent acceleration
- **Avoid** Riding in mountainous conditions, or against a strong wind
- **Avoid** Accelerating from standing position
- **Avoid** Riding in muddy conditions and rough terrain,
- **Avoid** Riding with another person, or overloading

Any and all the above actions will result in a significant shortening in the riding range.

Some tips for extending the riding range.

1. Avoid unnecessary slowing and acceleration by looking ahead and anticipating what is to come. Partially slow down and accelerate gradually.
2. When riding on an incline or against the wind, pedal to help the bike move forward.
3. In standing acceleration, help the bike with active pedaling. This will preserve range.
4. When the charging gauge shows that the battery is empty, deactivate the electrical system and switch to normal pedaling without the engine's assistance.
5. When not using the bicycle long term, remove the battery and charge it at least once a month.
6. **DO NOT OVERCHARGE YOUR BATTERY**

The information presented in this user's manual is general and is used to explain general information and precautions about the bike. This does not serve as a maintenance guide.

Riding Range

- Continuous riding range after a full charge is 25-50 miles.
    - The riding range is influenced by many different factors such as:
        - the PAS level desired (more help, less range),
        - inclines and declines along the route,
        - and the weight of the rider/equipment carried (total weight)
- Using active pedaling: The rider's assistance in the movement of the bike increases the range.
- Battery performance may decrease in extreme cold/hot conditions, along with riding with tail/interior wind.
- Low tire pressures increase friction and decreases the driving range. The recommended air pressure is indicated on the tires maximum PSI.
- Algae and frequent brake buildup may increase drag
- **NEVER CHARGE THE BICYCLE BATTERY UNATTENDED**

Ongoing maintenance

To increase the safety and enjoyment of the bike, and maintain its longevity, it is recommended that the bike be continuously maintained.

Ongoing inspection

- Check and tighten all locks, restraints, wheels, saddle, and handlebar grips before use
- Ensure tires are inflated to the proper PSI. Verify tread depth. (Recommended air pressure indicated on the tire)
- The gear shifter activates normally and freely and can change gears easily.
- Lighting, reflectors, and bell are functioning normally. Test the integrity of the braking system.
- If the bike is not in use, drain and charge the battery at least once a month.
- **Be careful when maintaining and using moving and/or rotating assemblies as to not trap fingers, hands, or hair in any parts.**

Charging the battery

- Please refer to the beginning of this guide for information about using and charger.
- The battery indicator will instruct the rider about when a recharge is necessary.
- Charging time from empty is about 4-6 hours.
- The battery must only be charged with the charger provided. Aftermarket chargers not meeting the same specifications may cause internal battery damage.
- Do not charge the battery with a non-genuine charger, or one not designed for lithium-ion batteries.
- To charge, connect cable to battery body and a 110V outlet
- The battery has 3 LEDs to indicate the charging status

Maintenance and cleaning

- Do not wash the bicycle using high water pressure to prevent water from penetrating the electrical system and critical bicycle components.
- Clean all painted parts with light cleaning products and wipe with a dry cloth.
- Once rinsed, lightly grease the chain and moving components.
- Be sure to use lubricant oil for bicycles only. Do not grease the rims, tires, disc restraints, pads, battery, or controller.
- It is recommended to replace the brake pads occasionally (based on frequency of use)

Recommended technical inspections

- Chassis: inspect and repair any cracks or openings in the welds.
- Tighten the following parts: fork, handlebar, brake handles, seat bar, pedals, suspension, porter, folding bracket, wheel connection, drive wheel, gear shifter, flashlight bracket, battery bracket, rail, rotor (disc), controller cover, mud guards (wings).

Getting Started

1. Connect the charging cable to the battery charger input
2. Connect the outlet to a 110V power source.
3. Verify all hinges/bolts are secure
4. Enjoy once charged!

General information and battery precautions

1. While the battery is detached from the bike, please refrain from touching the battery connectors (+ /-), especially if hands are wet, or when touching metal, for fear of electrocution or short.
2. The battery must be charged at the correct polarity. Charging the battery in incorrectly may significantly reduce the duration of its life. Please follow the enclosed charging guidelines to ensure safe use, and battery longetivity.
3. The charging cable must be connected between the charger and the battery securely.
4. First attach the feed wire to the charger, and then insert the 110V wall end into the outlet.
5. After charging is finished, first pull the plug from the outlet, and then feed the plug from the charger to the battery, through the body of the charger.
6. Keep your charger and battery in a safe place, away from child's reach.
7. Do not use the battery before it is fully charged. Doing so can severely shorten the battery's lifespan.
8. Do not charge the battery with a non-genuine charger. Use only the charger provided with the bike.
9. Avoid charging in moist and/or humid conditions. Keep the battery stored safely to prevent damage
10. Do not cover the charger while in use, as it may overheat or burn.
11. Use the charger only in an enclosed structure.
12. If the charger begins to smell, or the charger/battery get very hot, seize charging immediately and contact a technician.
13. **NEVER CHARGE THE BICYCLE BATTERY UNATTENDED**
14. Do not charge under direct sunlight or in humid conditions, as it may damage the batteries electrical system.