

Product Manual

Nitrox Fatbike Street 1500W



Please read this owner's manual carefully before operating this vehicle.

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Chapter 1 Introduction

Main features are as follows:

- 1: Lithium cell: the product has passed all the test required by CE, ROHS and UN3803 certification standards.
- 2: Cell bin: it is hidden at the central plane underneath the foot plate, so the weight is evenly distributed, compact, convenient and safe.
- 3: Motor: it is made of high-quality magnetic steel with added silicon steel sheet, with thick coils, a precise bearing and a thick motor shaft. It has strong power and capacity and it is durable.
- 4: Tires: tires adopted are extra wide vacuum tires used by ATV, such tires are thick and firm with better stability, strong holding capacity. This will bring you a safe, comfortable and smooth ride.
- 5: Frame: from three-dimensional virtual design and assembling to technology-advanced numerical-control pipe bending and argon arc welding, all these operations are accomplished without stopping.
6. Disc brake: a compact and fine oiled disc brake is adopted. The pump house adopts a aluminum alloy technology and advanced CNC processing technic which makes the brake very flexible.
7. Handlebar: it is of streamline ergonomic leisure design, it is firm and easy to grip.
8. Turning bar: injection molding by soft rubber materials is adopted for the turning bar, so it will bring you comfortable holding.
9. Cushion: highly flexible foam and high level of anti-slip leather with well-designed exterior, perfect manufacturing and suitable saddle height, which makes your ride comfortable.
10. Intelligent charger: it is fully-automatic and portable design. When charging, no care is needed, wherever there is 220V AC power supply, charging can be done.
11. Controller: it has been calibrated precise and starts up without pause, which makes the ride more safe.

Chapter 2 Parts name and overall view of the whole scooter.



Chapter 3 main technical parameters

1: Main technical parameters of the whole scooter:

- 1: Dimensions of vehicle: 1750*850*1300mm
- 2: Wheel base: 1300mm
- 3: Seat height: 700mm
- 4: Scooter weight with battery: 61kg (battery 7kg)
- 5: Tyre specification: 225/55-8 (18x9,50-8)
- 6: Max load: 180kg
- 7: Designed max. Speed: $\leq 45\text{km/h}$
- 8: Max torque: 95N/M
- 9: Max slope: $\leq 18^\circ$

2: Main technical parameters of the storage cell:

- 1: Cell type: lithium battery cell
- 2: Capacity: 60V - 10,4 Ah
- 3: Voltage: 60V

3: Main technical parameters of the motor:

- 1: Motor type: brushless direct hub motor
- 2: Motor power: 1500W

4: Main technical parameters of the controller:

- 1: Current -limiting protection value: $\leq 2.5 \pm 1\text{A}$
- 2: Under-voltage protection: $52 \pm 1\text{A}$

5: Main technical parameters of the charger:

- 1: Input voltage(AC): AC 140~240 V 50/60Hz
- 2: Output voltage(DC): $61 \pm 0.4\text{v}$
- 3: Charging time(depends the remaining electricity): 5~7h

Chapter 4 Installation instructions

1: Handlebar installation

Insert the 4 screws like picture shows, through the block which is ment for the handlebar.
See pictures below



2: Display installation

Place the display/headlight around the handlebar in the middle of the handlebar. Than screw the 2 screws from underneath though the holes to tighten the display to the handlebar. Note: Make sure the display/headlight is well tightened.



4: Front disc-brake installation

Place the frontwheel on the ground, on flat surface. Place the discbrake on top of the wheel. Use the 6 screws and screw the discbrake to the wheel. Note: make sure the screws are well tightened



3: Frontwheel installation

Put the frontwheel axel trough the front wheel and add spacers on both sides. Than place fatbikes frontfork on top of the axel on the outside of both spacers. Finish the wheel installation by screwing a nut on both sides. Note: Make sure you tightened this nut well to avoid accidents!



5: Front caliper-brake installation

The Caliper should be tightened to the frontfork and it's holes. Make sure the holes are pointed backwards to the driver and not forward.

Screw the caliper to the frontfork with the screws and nuts. Make sure the discbrake is nicely placed in the middle of the caliper. Note: Make sure you tighten the screws well.

After installation always check if the brakes are working well.



6: Re-tighten the above steps

After you have driven about 30-50km please check all the screws and nuts, to make sure everything is still well tightened!

Chapter 5 Operation method and considerations

1: Considerations for safe driving

- * Please observe traffic regulations and drive safely. Please control the speed within safe speed range.
- * Before driving, read these instructions first, and then perform exercise at an open site, make sure you are fully mastering the driving and get familiar with the structure and performance of this vehicle.
- * Do not lend the vehicle to a person who is not familiar with or unable to drive the vehicle.
- * Take more care when driving in rain or snow, danger may occur due to wet ground. Then you should drive at a lower speed and take more care when turning. You must remember that you do have to brake earlier in rain or snow do to longer braking distance to prevent accidents!
- * Wear a helmet and fasten it correctly.
- * Wear suitable clothing: do not wear tights so that your whole body can move freely; you should wear clothing with sleeves unopened and low-heel shoes, as practical as possible.
- * Do not overload: the max is 180kg. The handling feeling of handlebar with load is different from that without load. When many articles are loaded, the handlebar will vibrate, resulting in danger. The stable load of the vehicle is one or two persons, it is very dangerous to load articles or person at the front of foot plate.

2: Method for correct operation

1: Driving method

- * Keep natural posture, and free driving can be good.
- * Driving in sitting posture: please always keep your body at the center of the cushion to prevent load reduction of the front tire and danger caused by handlebar vibration.
- * Do not drive while standing on the footplate.
- * Drive the vehicle slowly on roads with surface damage or paved with gravels.
- * In rain or snow, wet ground will easily cause sideslip, so you should drive slowly with much attention. When water accumulated on roads becomes above the cell box located underneath the foot plate, do not drive in it, so as to prevent electrical parts damage caused by short circuit. Meanwhile braking performance will decrease, which will cause accidents easily.

2: Parking method:

When parking, be mindful of vehicles and pedestrians nearby. Slowly park the scooter on the right side of a flat road, avoiding slopes. Once parked securely, turn the power supply lock clockwise to remove the key. Then, lock the scooter using a separate lock

3: Charging

Upon connecting the power supply lock, the voltage indicator light will illuminate. When the battery is fully charged, the indicator will display a green light

4: Operation method for power supply:

To start the motor, turn the key of the power supply lock clockwise. During operation, do not remove the key or switch off the power supply. Do not turn the key counterclockwise to close the power supply lock while driving. When the power supply is switched off, the motor will stop running. After parking, turn the power supply lock counterclockwise to switch off the power supply and remove the key.

5: Gashrottle

Turning the handlebar towards the driver will accelerate the scooter, while releasing it will decrease speed and cut off the motor's power supply after resetting.

6: Operation method of disc brake and considerations:

* Adjustment of Brake Clearance: To adjust the clearance between the brake pads and the brake disc for optimal comfort, use a 2mm Allen wrench to turn the adjusting screw situated between the brake lever and the handlebar tube.

* Brake Pad Replacement: Replace worn-out brake pads if they are more than 1mm thin or when the adjusting screw has reached its end position, or every six months. When replacing pads, push one pad in with a clean slotted screwdriver to make space for removing the other. After replacement, readjust the brake pad adjusting screw to an appropriate position.

* Run-in Period: The braking surface of the disc brake requires a certain break-in period. After this period, braking force will noticeably increase. During the first week of using a new disc brake, avoid applying excessive force to prevent irreparable damage to the pads and braking system. Gradually apply the brakes while driving to maintain proper friction between the pads and the disc.

* Oil Replacement: This disc brake system uses mineral oil, which typically requires replacement every 2-3 years or when the braking lever feels weak. Replace the oil using an injector.

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* Avoid using lubricating oils near the disc brake, pads, or caliper, and refrain from touching these surfaces with bare hands, as it can significantly reduce braking performance.

* Avoid exposing new brakes to water to prevent contamination of the brake pads by lubrication grease from the assembly clearance.

* Hydraulic Disc Brake Caution: Hydraulic disc brakes provide strong braking force. Practice using them in a safe area to adapt to the difference from conventional brakes and prevent injury from wheel lock-up caused by excessive force.

7: Operations methods of the charger and consideration:

- * When charging, connect the cell box first, then plug in the electric supply AC 220V. Upon completion of charging, follow the reverse procedure: unplug the electric supply AC 220V first, then disconnect the cell box.
- * During normal charging, the charger's indicator light will be red. When fully charged, it will turn green.
- * In high ambient temperatures during charging, if the red light on the charger flashes, it indicates that the charger is in a temperature protection state. Move the charger to a cooler or well-ventilated area. Normal charging resumes when the temperature inside the charger drops below 60°C.
- * If no cell is connected during usage and the charger's output has a pulse voltage less than 42V, a 1 KΩ ohmic load should be placed between the positive and negative output terminals during testing. This will allow the actual charging voltage of the charger to be obtained.

Considerations

- * Ensure to use the charger specifically provided by our company. The use of irregular or non-compliant chargers may shorten the lifespan of the battery or render it invalid.
- * The charger should only be used indoors.
- * Charging in enclosed spaces, under direct sunlight, or in high-temperature environments is strictly prohibited. Avoid placing the charger on the seat or inside the rear compartment of a vehicle while charging.
- * Do not leave the charger connected to an AC power supply without charging for an extended period.
- * If the indicator light behaves abnormally, emits strange odors, or if the charger becomes excessively hot during charging, cease charging immediately and seek repair or replacement of the charger.
- * Do not attempt to disassemble or replace any components inside the charger by yourself.
- * Avoid charging a battery that is already fully charged.
- * Do not use the charger in environments with flammable gases, as it may cause fire or explosion.
- * Keep the charger away from water sources and avoid getting it wet, as this may result in fire or electric shock.
- * If the internal parts of the charger are exposed due to damage caused by collision or other incidents, refrain from touching them with your hands to avoid the risk of electric shock and potential injury.

8: Operation method of the cell and considerations:

Charging:

- * A fully discharged battery (when the vehicle stops running) can be charged to over 95% capacity within 5 hours, and it can reach full charge within 8 hours.
- * During charging, avoid allowing either the positive or negative terminals to come into contact with metal surfaces.
- * When leaving the factory, the battery's charge typically sits around 80%. Before using a new vehicle, it is advised to charge it for 3 to 10 hours.
- * If the vehicle is left unused for more than one month, the battery's charge will decrease. Therefore it's recommended to recharge your battery before use.

- * Ensure timely charging of the battery to maintain driving range.
- * During charging, it's normal for the charger to generate heat. As long as the temperature remains below 60°C, it's within normal range.
- * When charging, place the charger and the entire vehicle in a stable, dry location that is free of flammable or explosive materials and out of reach of children.
- * Charge the battery within 24 hours after it is fully discharged, and charging time should not be less than 3 hours.
- * Check that there are no short-circuits at the charging port before initiating charging.

Discharging (use):

- * Only use the specified cell made for this model; otherwise, warranty coverage will be voided.
- * In the event of a short circuit, the cell management system will activate automatic protection. Additionally, the fuse connected in series with the power lines will blow, providing dual protection for your cell. Approximately 2 minutes after the short circuit is resolved and the fuse is replaced, the cell will resume normal operation.
- * Damage or improper configuration of the controller, motor, horn, lighting system, etc., in the electric vehicle may cause the cell to discharge at high currents. In such cases, the cell will temporarily stop output for protection, but it will recover within 10 seconds, which will not affect your driving experience.
- * The working temperature range of the cell is -10°C to 55°C. Similar to other cells, its available energy will decrease as the temperature rises, which is a normal phenomenon.

9: Storage

- * If long-time storage (more than one month) is needed, it is recommended to charge the cell to 60%~80% of electricity. During storage, it is needed to charge the cell every 3 months, and charging is also needed before using.
- * The cell should be stored in a cool and dry environment.
- * During storage, prevent conductive objects from connecting the positive pole with the negative one.
- * Do not use the cell near a fire source.
- * Do not disassemble the cell.
- * Do not refit the cell.

Warning

- * If the battery is found to deform or becomes excessively hot, discontinue use immediately and seek assistance from our company or repair department.
- * In the event of a fire, avoid extinguishing it directly with water. Instead, it is recommended to use sand, foam, a fire extinguisher, or thick clothing soaked with water to extinguish the flames safely.
- * Warranty will not be provided for battery faults caused by delayed charging of fully-discharged cells.
- * Avoid discharging the battery haphazardly.

3: Check, cleaning and maintenance

* Regular or Daily Inspection:

* Conduct the inspection in a safe location.

* Brake Functionality: Test the braking handle to ensure it can be gripped and squeezed gently, and verify if the clearance is appropriate. Check if it effectively brakes the vehicle.

* Tire Condition: Inspect for cuts, damage, or unusual wear on the tires, and check for any sharp objects such as metal, pebbles, or glass embedded in them. If the lug on a tire is worn down by two-thirds, replace the tire. Check tire air pressure based on the sunken condition of the part of the tire in contact with the ground. The standard air pressure for both front and rear tires is 1.5kg/cm².

* Battery Voltage: Verify if the voltage indicator of the power supply indicates full capacity (refer to Chapter 4).

* Steering System: Move the handle and front fork upwards, downwards, forwards, backwards, leftwards, and rightwards to ensure appropriate tightness and flexible steering. Check for any abnormal sounds resulting from collisions or loosening of the steering system. If any issues are detected, contact the distributor for prompt after-sales service.

* Wheel Axle Tightness: Check whether the front and rear wheel axles have become loose.

4: Common fault and removal method

Number	Fault	Causes	Removal method
1	Speed-governing fault or max. speed decreased.	<ul style="list-style-type: none"> ① Too low cell voltage; ② Speed-governing turning handle damaged; ③ The spring inside speed-governing turning handle got stuck or failure. 	<ul style="list-style-type: none"> ① Charge the cell; ② Ask the distributor for replacement; ③ Ask the distributor for replacement,
2	The motor does not work after power supply is switched on.	<ul style="list-style-type: none"> ① The cell's connecting line becomes loose; ② Speed-governing turning handle damaged; ③ Motor's output line becomes loose or damaged. 	<ul style="list-style-type: none"> ① Reconnect it; ② Ask the distributor for replacement; ③ Ask a dedicated maintenance station to replace it;
3	Continuous driving mileage is not sufficient after charging.	<ul style="list-style-type: none"> ① Air pressure of tyres is too low; ② Low power or the charger failed; ③ Aging of the cell or it is damaged; ④ Much climbing, great headwind, frequent braking and starting, heavy load. 	<ul style="list-style-type: none"> ① Fill enough air; ② Fully charge the cell or replace the charger; ③ Replace the cell; ④ Such condition will improve when driving conditions is back to normal.
4	The charger fails to charge.	<ul style="list-style-type: none"> ① The socket of the charger falls off or the connection between plug and socket becomes loose; ② The fuse inside the cell box fused; ③ Battery pack's connecting wire falls off. 	<ul style="list-style-type: none"> ① Fasten the socket or connectors; ② Replace the fuse inside cell box; ③ Weld connecting wire.
5	Other fault.	<ul style="list-style-type: none"> ① If there is a fault that you cannot determine; ② If the inside of the motor, cell, controller, charger, etc. damaged. 	Please ask the distributor or dedicated maintenance for repair, do not open these parts by yourself. Otherwise warranty will not be provided.