

FAVOTO

**E-BIKE
User Manual**

www.favoto.com


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Thank you for purchasing this Favoto electric bike. To ensure proper use and trouble-free operation, please read this manual carefully and store it in a safe place for future reference.

Please make sure to register your bike VIN series number on www.favoto.com before riding. In order to simply maintain after-sales service.



 Scan the QR code and register

1. Safety Information

Bicycle riding involves the risk of injury and even death. Choosing to ride a bike means that you have taken the corresponding risks. To reduce risks and ensure your safety, you **MUST** read and follow the rules about bicycle assembly, riding, and maintenance.

- Abide by **all** relevant laws and regulations in your country or region when riding this e-bike. For details, please consult your relevant local authority.
- This e-bike is designed for users aged 16 to 70. We recommend users over 70 years old do not ride this e-bike. Riders must have the appropriate physical condition, reaction time, and mental capability to manage traffic, road conditions, and emergencies.
- Never operate this e-bike under the influence of alcohol, drugs, or in any other unsafe condition. Otherwise, it will impair your judgment or ability to safely operate a bicycle or other vehicles.
- If you have visual impairment, hearing impairment, physical impairment, cognitive/ language impairment, epilepsy, or other conditions that may affect your safe riding, consult your physician before riding this e-bike.
- Make sure you are capable of controlling this e-bike before the first ride. Otherwise, you may lose control or fall.
- Check regularly to ensure that **all** components have been tightened and are in good condition.

Make sure the handlebar is installed correctly and in good condition. A loose or damaged handlebar can cause you to lose control or fall.

If you have any questions, please contact us. Send an email to support@favoto.com, and we will respond to you within 24 hours.

2. Overall Vehicle Structure



- | | | | | |
|------------|------------------------|-------------------|----------------|---------------------|
| ① Grip | ② Left Brake Lever | ③ Instrumentation | ④ Transmission | ⑤ Right Brake Lever |
| ⑥ Wiring | ⑦ Stem | ⑧ Front Fork | ⑨ Front Lights | ⑩ Front Fender |
| ⑪ Frame | ⑫ Frame Folding Switch | ⑬ Saddle Tube | ⑭ Saddle | ⑮ Rear Hanger |
| ⑯ Flywheel | ⑰ Motor | ⑱ Air Nozzle | ⑲ Mudguard | ⑳ Chain |
| ㉑ Sprocket | ㉒ Disc Brake | ㉓ Tires | | |

- ◆ Electric power-assisted bicycles are green and environmentally friendly means of transportation with electric drive, combined use of electric power and pedals, and pedal drive.
- ◆ Electric drive: Toggle the speed control switch on the handlebar, the controller receives the speed control command and adjusts the motor to output the corresponding power.
- ◆ Combined use of electricity and pedals: When the power is turned on, the sprocket is rotated by pedaling, and the controller reads the rotation signal of the sprocket sensor and controls the motor to output the corresponding power.
- ◆ Pedal drive: When the power is not turned on, the sprocket is rotated by pedaling to achieve a cycling journey.

3. Safe Riding Instructions

3.1) Operation

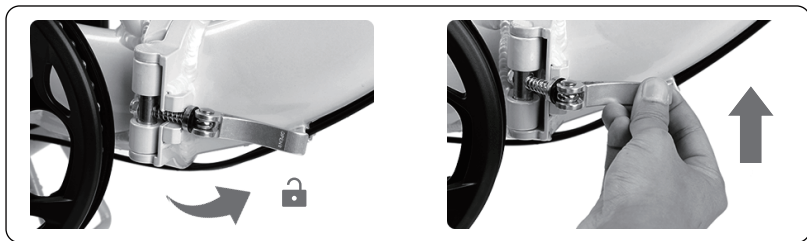
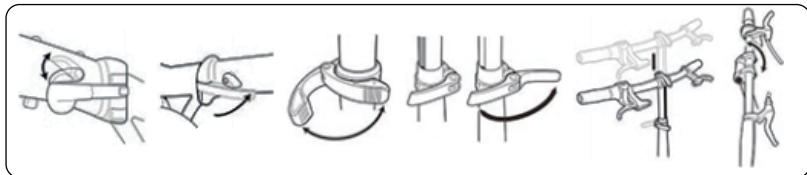
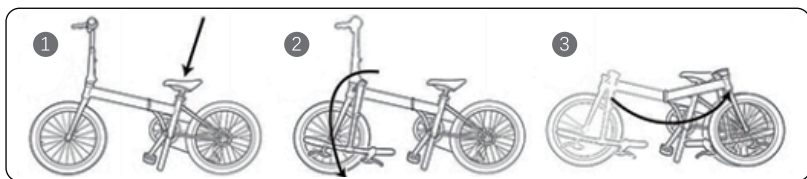
- ◆ Before riding, you need to check whether the fasteners of the vehicle are loose or abnormal, and whether the electrical components are abnormal. You can ride only when there are no abnormalities. Use them correctly according to the vehicle's markings.
- ◆ Electric bicycle users must abide by local traffic laws and regulations and pay attention to driving safety.
- ◆ It is recommended to wear a helmet when riding. When riding in rain or snow, the braking distance will be extended. Be careful to slow down and avoid traveling in bad weather such as heavy rain.
- ◆ Do not park electric bicycles in building foyers, evacuation corridors, walkways or safety door exits.
- ◆ Do not charge or park electric bicycles in residential buildings. When charging, they should be kept away from combustible materials. The charging time should not be too long. When charging, the red light on the charger means that it is charging, and the green light means that it is fully charged. You need to unplug the power plug in time.
- ◆ Do not use strong faucets to wash, avoid direct water washing of the vehicle's electrical components, and try to avoid letting water enter the battery box.
- ◆ It is prohibited to use wet hands or metal conductors to touch the live parts of the electric bicycle, such as the battery box socket, the battery box connecting plug socket, and the charger power socket.
- ◆ Used batteries cannot be dismantled without authorization and should be handed over to relevant professional departments for recycling.

4. Installation Debugging

4.1) Three Steps of Folding and Unfolding Method

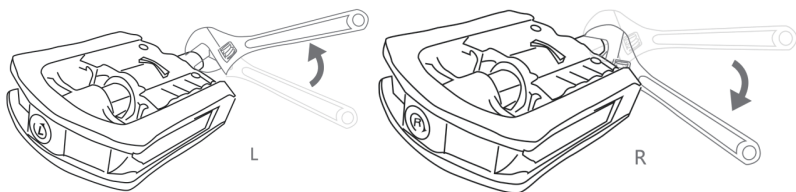
- ◆ Adjust the saddle pipe and crank, loosen the saddle pipe clamp quick release, insert the saddle pipe down to the bottom, lock the saddle pipe clamp quick release, and adjust the left crank angle to 9 o'clock.
- ◆ Fold the T-handle of the riser strip, loosen the safety clamp ring of the riser, open the safety handle of the riser, fold the upper end of the riser downward, and adjust the position of the T-handle.
- ◆ Fold the frame, open the safety buckle of the frame folder, open the safety handle of the frame, fold the front wheel until it is almost parallel to the rear wheel, and complete the folding (expansion method: follow the folding steps back to complete the unfolding) .

Note: After opening the safety buckle, please lift upwards to unlock the frame buckle.

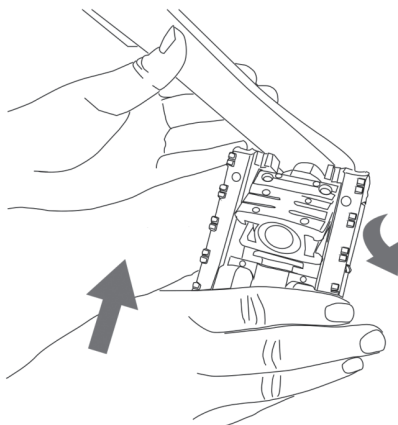


4.2) Pedal Installation / Folding

◆ Before installing the pedal, first distinguish the crank side and the crank side of the sprocket. (L next to the screw port is marked as the left crank; R is marked as the right sprocket crank side). Use a 15# wrench to tighten according to the installation direction. The L side is counterclockwise. Tighten, the R side is clockwise, and the pedal locking and tightening force should not be less than 18N.M. It is strictly prohibited to ride without locking the pedals.



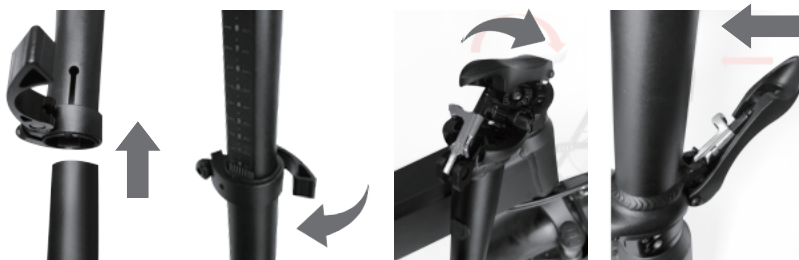
◆ Folding: press the outside of the foot pedal and press inward. When there is enough space, rotate vertically to complete the folding. Rotate vertically to complete the unfolding.



4.3) Handlebar Installation

- ◆ Arrange the transmission and brake cables, plug in the handlebars, and adjust the quick-release wrench to a suitable height.
- ◆ Pull up the folding riser, lock the quick release handle, and complete the installation.
- ◆ The handlebar height cannot exceed the safety mark.

Warning: Before each ride, please make sure that the frame lock, seat tube lock, and riser lock are locked, the braking system is normal, and the tires are fully inflated to ensure safe riding.



4.4) Battery Installation

- ◆ Align the battery with the battery skidway and insert it to the bottom. Insert the key and turn it clockwise.
- The order is:
1. Unlock the skidway lock.
 2. Lock the battery.
 3. Start the battery power.



- ◆ The battery can be charged on the car through the charging hole on the left side of the frame, open the dust cover and plug in the DC2.1 power plug for charging.

4.5) How To Use The Monitor

◆ 1. Display Function.

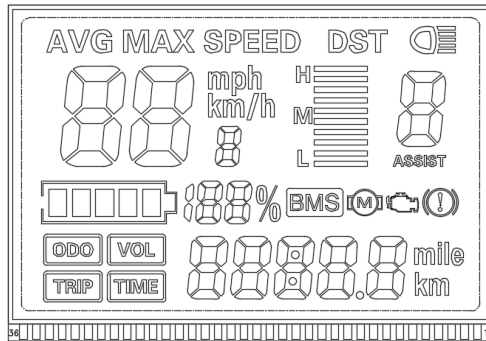
Speed display, power indicator, fault indication, total mileage, single mileage.

◆ 2. Control, Setting Up Functions.

Power switch control, wheel diameter setting, idle automatic hibernation time setting, backlight brightness setting, Start mode setting, drive mode setting, voltage level setting, controller limit value setting.

◆ 3. Communication Protocol: UART.

All contents of the display screen(full display in boot 1S) .



Show Content Introduction

3.1 Battery Power and BMS Residual Power Display.



3.2 Multifunctional Display Area.



Total mileage ODO, Single mileage TRIP (unit: mile, km), Single boot time TIME, Battery voltage VOL, DST: endurance

3.3 Speed Display Area.



AVG: Average speed, MAX: Max speed, SPEED: Current speed, UNIT: Mph, km/h

The speed signal is taken from the Hall signal in the motor and sent to the instrument by the controller. (The time of a single Hall period, unit: 1MS) The instrument will calculate the true speed based on the diameter of the wheel and the signal data(the number of magnetic steel needed by the motor Hall)

3.4 Vehicle Power Gear Adjustment, 0-9 Digital Display and File Bar Display.



3.5 Vehicle Status Display Area.



Motor failure



Brake tip



Headlight on prompt

Key Introduction:

1. Under shutdown, long press key is boot; after boot, Boot key, Interface switching between ODO, TRIP, VOL, TIME.
2. Boot state, long presskey is turn off, short press key, Help file+1, short press key, help file-1.
3. long press key+ key enter mode settings.

Parameter value modification: under a parameter state, short press key Switch Parameters, short press key Increase in value, short press key reduces the value, and when it's modified, short press key Switch to the next parameter and save the previous parameter value; Parameters modified long Press again, key+ key Exit the settings interface. If not, wait 8 seconds to automatically exit and save the parameters.

Note: Due to the upgrade of the company's products, it is possible that the contents of the product section you get will be different from the specifications, but it will not affect your normal use.

Setting Instruction

P01: Backlight brightness, level 1 darkest, level 3 brightest;

P02: Mileage unit, 0: KM; 1: MILE;

P03: Voltage level: 24V, 36V, 48V, 60V, 64V default 36V;

P04: Dormancy time: 0, not dormancy; Other numbers are dormancy times, range: 1-60; Unit minutes;

P05: 0-3 Gear mode/ 1-5 Gear mode;

P06: Wheel diameter: unit, inch; Precision: 0.1;

This parameter is related to the meter display speed and needs to be entered correctly;

P07: Speed gauge magnetic steel number: range: 1-100;

This parameter is related to the meter display speed and needs to be entered correctly.

4.6) How to Adjust the Saddle Tube

◆ Open the quick-release handle and insert the seat tube. The left nut is in the appropriate position. Pull the seat tube up and down to adjust it to the appropriate height and buckle the handle.

Warning: When adjusting the handlebar and saddle height, do not exceed the safety mark. After adjusting the handlebar cross tube, handlebar riser, saddle, and saddle tube, be sure to press firmly and not rotate.



5. Vehicle Maintenance Repair Troubleshooting

5.1) Specifications

Item	Parameters
Net Weight	66 lbs / 29.5kg
Dimensions (Open Size)	65 x 25.6 x 65 in / 1650 x 650 x 1650 mm
Dimensions (Folded Size)	35 x 30 in / 89 x 76 mm
Max Incline	25°
Maximum Load	264.5 lbs / 120 kg
Battery	48V 15Ah / 20Ah
Motor	48V 750W
Charging Voltage	100V-240V / 50-60Hz / 42V 2A
Charging Time	4~5 Hours
Wheel Size	20" Front / Rear
Wheel Inflation	Max Inflation to 30 P.S.I
Water Resistance	IPX4

5.2) Troubleshooting

Serial Number	Fault	fault cause	trouble shooting
1	Speed regulation failure or maximum speed is low	<ol style="list-style-type: none"> 1. The battery voltage is too low; 2. The speed control handle keeps loosening; 3. The spring in the speed control handle is stuck or fails. 	<ol style="list-style-type: none"> 1. Fully charge the battery; 2. Step up after inspection; 3. Replace the speed control handle.
2	The motor does not work when the power is turned on	<ol style="list-style-type: none"> 1. The motor connecting wire is loose; 2. The brake lever fails when the power is cut off; 3. The motor hub wire plug is loose or damaged. 	<ol style="list-style-type: none"> 1. Plug in the cable tightly; 2. Check whether the brake lever power cord is disconnected; 3. Tighten the link plug or replace it.
3	Insufficient cruising range	<ol style="list-style-type: none"> 1. Insufficient tire pressure; insufficient charging, charger failure. 2. Battery aging; many uphill climbs; strong headwinds; frequent braking and starting; heavy load and low air temperature. 	<ol style="list-style-type: none"> 1. Sufficient gas; sufficient power or whether the charger connector is in poor contact; 2. Replace the battery; it is recommended to use pedal assistance.
4	The charger does not work	The charger plug has fallen off or the connection between the plug and the socket is loose.	Tighten the socket plug; replace the fuse and solder the connecting wire.
5	The battery has sufficient power but no voltage display, and the hub motor cannot be used.	<ol style="list-style-type: none"> 1. The starting motor voltage is lower than 30V; 2. The battery switch wire comes off; 3. The monitor plug-in comes off; 4. Controller failure. 	<ol style="list-style-type: none"> 1. Replace with new battery; 2. Reconnect/tighten; 3. Replace the monitor; 4. Replace the controller.
6	The instrument displays E06	<ol style="list-style-type: none"> 1. Insufficient battery; 2. The value set in the instrument setting menu P03 does not match the battery parameters. 	<ol style="list-style-type: none"> 1. Charge the battery pack with the corresponding charger; 2. Enter the instrument menu and set the P03 value to the corresponding voltage of the battery pack.

Serial Number	Fault	fault cause	trouble shooting
7	The instrument displays E07	<ol style="list-style-type: none"> 1. The motor connection cable is not plugged in; 2. Motor Hall failure; 3. The motor wire is broken. 	<ol style="list-style-type: none"> 1. The motor connection cable is not plugged in properly. Re-plug and unplug the connector between the controller and the motor; 2. Replace the motor; 3. Check whether the motor wire at the motor shaft is damaged and re-solder the connecting wire.
8	The instrument displays E08	<ol style="list-style-type: none"> 1. Hall sensor failure; 2. Throttle connecting cable comes off. 	<ol style="list-style-type: none"> 1. The governor harness is not plugged in; 2. Plug the orange wire harness into the main wire plug.
9	The instrument displays E09	<ol style="list-style-type: none"> 1. Controller failure; 2. Main line pin deformation. 	<ol style="list-style-type: none"> 1. The governor harness is not plugged in; 2. Plug the orange wire harness into the main wire plug.
10	The instrument displays E10	<ol style="list-style-type: none"> 1. Communication reception failure; 2. The main line pin is broken; 3. The instrument and controller protocols do not match. 	<ol style="list-style-type: none"> 1. Replace instruments and controllers; 2. Correct the main wire pins or replace the main wire; 3. Copy the correct protocol.

6. Notice

- ◆ Users must follow the instructions in the instruction manual when charging, otherwise they will be responsible for the consequences.
- ◆ Tips: Original charger must be used.
- ◆ Pay attention to the types and applicable voltages of the batteries that the charger can charge, and it is strictly prohibited to mix them.
- ◆ It should be placed in a ventilated environment when charging. It is strictly prohibited to charge in a confined space or in a scorching sun or high temperature environment. Do not place the charger in the saddle or tail box for charging.
- ◆ When charging, plug in the battery first and then plug in the power supply. When sufficient, cut off the power first and then unplug the power plug.
- ◆ When the green light turns on, the power supply should be cut off immediately. It is forbidden to connect the charger to the AC power supply without charging for a long time without charging.
- ◆ During the charging process, if the indicator light is abnormal, a peculiar smell appears or the charger and discharger shell is overheated, charging should be stopped immediately and the charger and discharger should be inspected or replaced.
- ◆ During the use and storage of the charger and discharger, avoid the entry of foreign matter, especially the inflow of water or other liquids, to avoid causing an internal short circuit in the charger. Try not to carry the charger with the car. If you need to carry it, you should do a good job of reducing the charger. After shock treatment, place it in the tool box.
- ◆ In heavy rain, avoid soaking the rear wheel motor in water while riding. Water overflowing the motor shaft can easily lead to water ingress, causing the motor and controller to be damaged and unable to rotate. Water intrusion is a human fault and is not covered by the three guarantees.