



EBIKE USER MANUAL

LF/LM Ultra Series



Thanks for your LM/LF Ultra Ebike purchase!

We take pride in bringing you a quality product that will offer years of enjoyment. Please feel free to contact us if there are any questions about the bike.

Congratulation on your purchase of a new Rattan Ebike! The bike comes 95% assembled and here is the guide helps you get familiar with your new bike in unboxing.

The bike may need adjustments in this process as shipping can sometimes be bumpy. We recommend an adjustment and inspection by a reputable, certified bicycle mechanic before the first riding.

Please read the whole manual patiently before you use the new electric bike, for technical assistance or warranty claims contact Rattan Ebike at

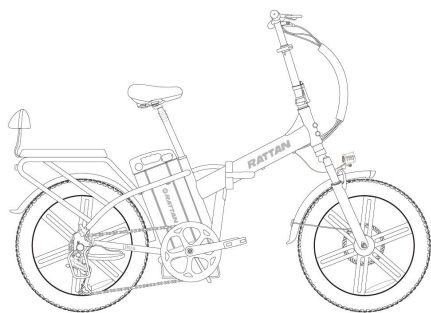
Phone: (562) 488-5588 9am-5pm (PST)

E-mail: info@rattanebike.com

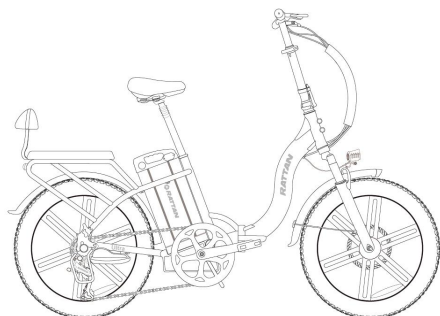
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General Information



**Fully assembled LM Ultra
High-Step**



**Fully assembled LF Ultra
Step-Thru**

Please note that your LM/LF Ultra may include components that look different from those in the illustrations above and elsewhere in this manual. Such changes help ensure uninterrupted shipping. Our engineers rigorously test each component to guarantee quality and compatibility.

Specification	
Model Name	LM/LF Ultra
Max. Load Capacity	300lbs
Max.Speed	Configurable to 32 MPH
Motor	48V 1000W Brushless Hub
Battery	48V 40Ah Li-ion
Range Average Per Charge	Average 100miles
Wheel Size	20 x 4" Front /Rear
Tire Pressure	17-18 PSI advisable
Weight (Without battery)	26 KG (57.3 lbs)

Serial Number



There is a serial number attached on the bottom axis connecting the pedals as shown in the above picture. Please take a picture ahead once you received the bike.

You may be asked for a picture of your bike's serial number as a part of warranty requests and may also be asked to provide this number to law enforcement provided that your bike is stolen.

Assembly Instructions

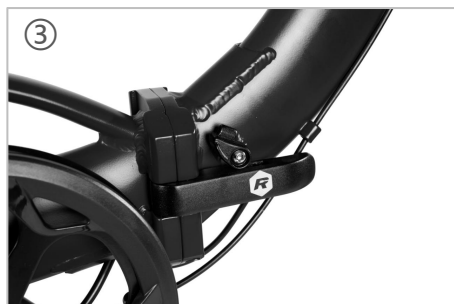
1. Unpack the Bike



WARNING

Incorrect assembly, maintenance, or use of your ebike can cause component or performance failure, loss of control, serious injury, or death. Even if you're an experienced bike rider, you must read and understand the entire manual and any documentation provided for sub components or accessories before riding. If you are not sure you have the experience, skills, and tools to correctly perform all assembly steps in the manual, consult a local, certified, reputable bike mechanic.

2. Unfold the Bike



Step 1. The bikes come being folded as the picture one shown.

Step 2. Unfold the bike and press the quick release according to the direction.

Step 3. Turn the buckle into the hole of the quick release to lock it.

3. Install the Handlebar

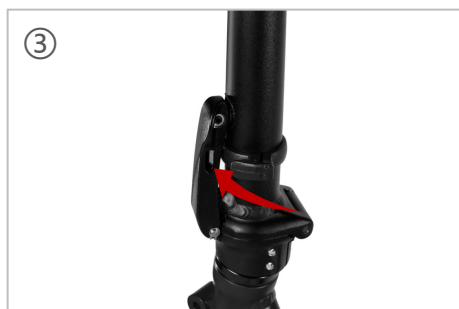




Step 1. Insert the stem of the handlebar into the top tube along the groove.

Step 2. Adjust the height of the handlebar then tighten the screw and lock the release.

4. Fix the Stem



5. Assemble the Rear Pedals



6. Install the Rear Seat



Step 1. Please unscrew the screw on the picture and connect the cushion with the rear seat.

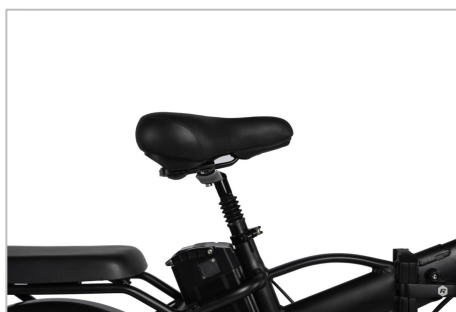
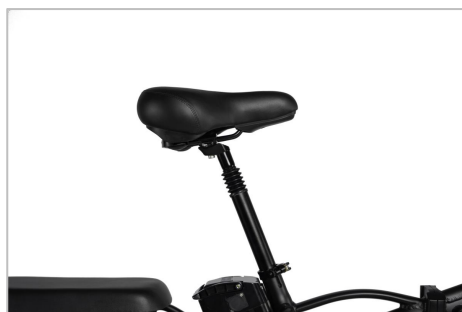
Step 2. Push the cushion according to the direction the picture shown, then tighten the screw.

7. Connect the Pedals



Unfold the pedals as the picture shown.

8. Adjust the Seat



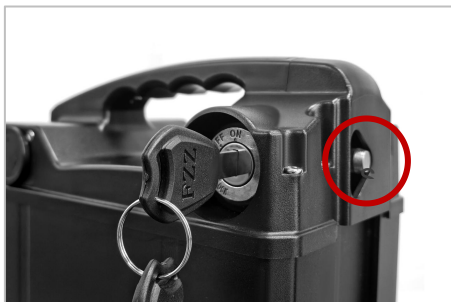
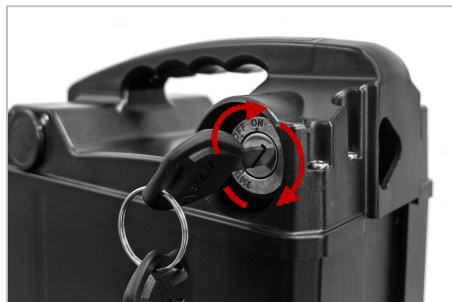
Step 1. Open the quick release.

Step 2. Insert the seat post, ensuring the minimum insertion point (**safety tick marks**) goes into the seat tube.

Step 3. Search a comfortable height of saddle by sitting on the saddle with your feet on the ground.

Step 4. Close the quick-release lever using your palm.

9. Adjust the Battery



Lock on the battery.



Turn the key to 'ON' position, and you could see the battery power by pressing the button on the battery. The picture 3 shows the charging port of the battery.



Poor connection ❌



Well connection ✅

You could adjust the battery track by unscrewing the screws on the bottom to better connect the battery and the bike.

10. Adjust the Brakes



① Adjust brake disc ② Adjust brake disc ③ Adjust the brake

Step 1. Make sure the brake disc is in the middle of two brake pads.

Step 2. Adjust the brake tension according to your riding habits.

Step 3. Loosen the screw and adjust the brake wire to the suitable brake tightness.

Step 4. Loosen the screws to adjust the brake disc (abnormal noise or brake stuck when braking).

Step 5. Adjust the brake pad to keep the rotor in the middle position.

Step 6. Tighten the screws after each adjustment.

Comfort & Safety



WARNING

The following steps are critical for your comfort and safety, and must be performed before your first bike ride. We recommend that you consult a bike fitting professional such as a certified, reputable bike mechanic who specializes in bike fit.

Adjust the Seat Height

An ideal seat height for most riders allows them to be comfortable and get the best pedaling efficiency. When the rider is seated, they should be able to place the ball of their feet on the pedal at its lowest position while their legs is almost fully extended, with the knee slightly bent. The seat should never be so high that the rider must rock sides to side or fully straighten their legs while pedaling. And the seat must never be pulled out so far that the minimum insertion point is above the seat tube (see illustration).



WARNING

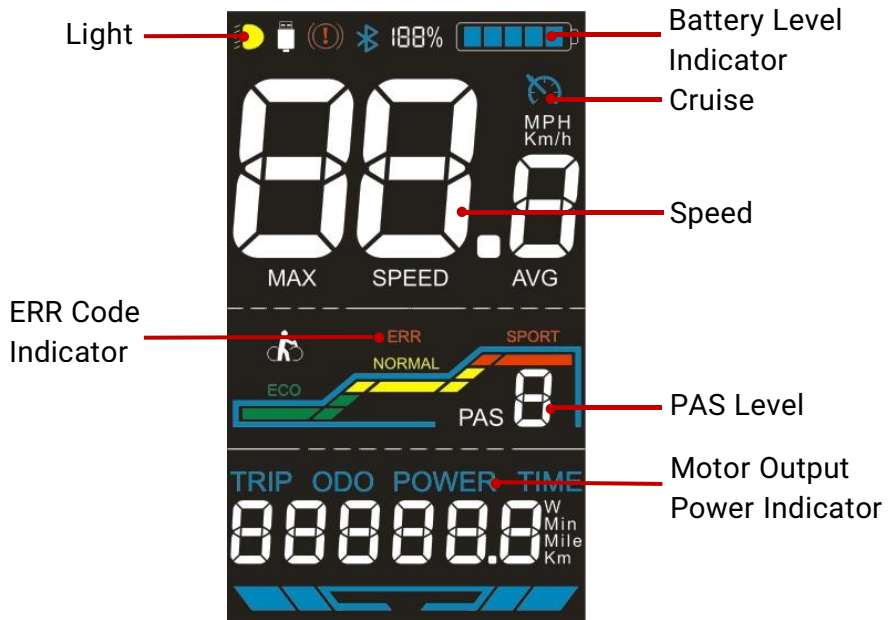
Overextending the seatpost can cause it to break or fall off your bike, which will put you at very high risk of serious injury or death. Avoid this danger by inserting your seatpost into the seat tube far enough that the minimum insertion point is no longer visible.

Preparing to Ride

Checklist

01. Make sure all components especially fasteners and accessories are tightened. Adjust the height of the handlebar and the seat post. DO NOT raise it above the safety line.
02. Make sure the brakes can cut off the power supply to the motor, and whether it is sensitive and reliable.
03. Make sure the front and rear axle nuts are tightened.
04. Make sure the display, brakes and lights can work properly.
05. Make sure the chain is tight.
06. Make sure the pedals and all the connection parts are firm and would not be loose, and whether the crank is flexible without jamming.
07. Check if the tire pressure exceeds the recommended one marking on the side of tire walls.
08. Make sure the throttle works well without jamming, and whether it feels tight or loose when pressing the throttle.
09. Make sure the battery has been locked.
10. Check if the total weight the bike carried is higher than 300lbs, which is the maximum weight capacity of the bike.

Display & Setting



Battery Level Indicator	Remaining battery power.
Light	Headlights and taillights turned on.
Speed	Real time speed while riding.
Cruise Control	Cruise control is on.
ERR Code Indicator	Shows the error code when the electronic control system fails.
PAS Level	0,1,2,3,4,5 Displays the current PAS level.
TRIP	Shows the distance of a single trip. Data is automatically cleared when the bike is powered off.
ODO	Shows the total distance of the bike from the beginning of use.
POWER	Shows the current motor output wattage.
TIME	Shows the single ride time.



Common Operation	How to Do
Turn on/off the bike	Press and hold the "  " for 3 seconds till the display is on / off.
Increase/Decrease the PAS Level	Press "+" or "-" button to increase or decrease the PAS Level.
TRIP/ODO/POWER/TIME Switch	Short press " i " to switch TRIP (Single Mileage) /ODO(Total Mileage) / POWER (motor output wattage) / TIME(single ride time).
Headlight Control	Long press "+" for 3 seconds to turn on/off the headlight.
Access the Display Setting	Press the "+" and "-" buttons constantly for 3 seconds, then "+" stands for last one, "-" stands for next one, "i" stands for confirm.
Cruise Mode	When riding, short Press "  " button to enter cruise mode."  "will be showed on the display. Short Press "  " button or brake to turn off the cruise mode.

Display Setting

1.Turn On/Off The Display

Press the "⏻" for 2~4s, turn on the display and power system connection. Press the "⏻" for 2~4s, turn off the display and the power system connection is disconnected.

*** The display will be off when there are over 10 minutes not in use.**

2.Display Interface

Turn on the display, the display will show speed (MPH) and ODO (Mile) by default, short press the "i" to switch ODO (Mile), TRIP (Mile), POWER (W) , Time (Min).



ODO(Total mileage)



TRIP(Single mileage)



TIME(Single ride time)



POWER(Motor output wattage)

3. Walk Mode



Turn on the display, long press the "-" button and the bike will start in walk mode.

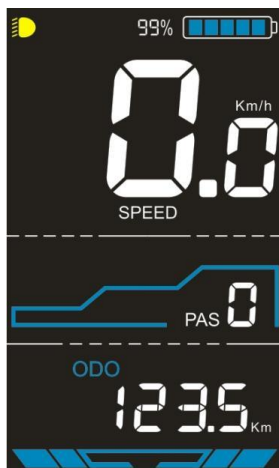
" " will show on the screen and it will drive at a uniform speed of 6km/h.

Release the "-" button, will stop the electric power output and return to the state before the walk mode.

*** Walk mode is available only when you need to walk the bike with little effort, do not use it in riding.**

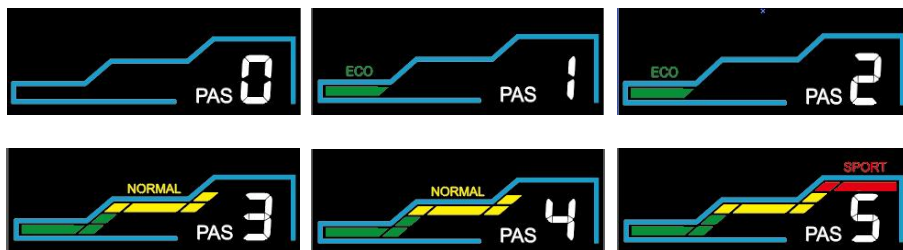
4. Turn on/off headlight

Long press " " button to turn on the headlight; again long press " " key to turn off the headlight.



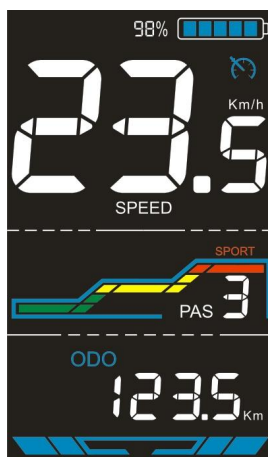
5. PAS Level Selection

Short press "+" / "-" button to switch the PAS level.



6. Cruise control Mode

When riding, short Press "  " button to enter cruise mode. "" will be showed on the display. Short Press "" button or brake to turn off the cruise mode while the screen will no longer display icon.



Parameter Setting



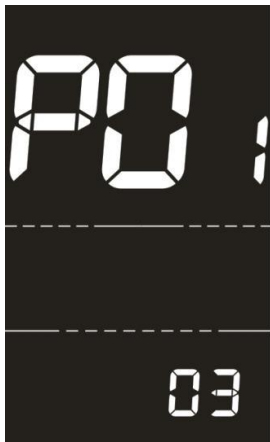
WARNING

Each of the settings needs to be performed when the bike is still.

- ① When the display is powered on and speed is 0, Long press both the "+" button and "-" button simultaneously for 2S to enter the parameter setting selection interface;
- ② Short press "+" / "-" button to switch the parameter setting selection interface, short press "i" button to enter the parameter setting state;
- ③ Short press "+" / "-" button for parameter selection;
- ④ Short press "i" button, save the parameter setting and return to the parameter selection setting interface;
- ⑤ Long press "i" selection, save the parameter setting and exit the parameter selection setting interface.

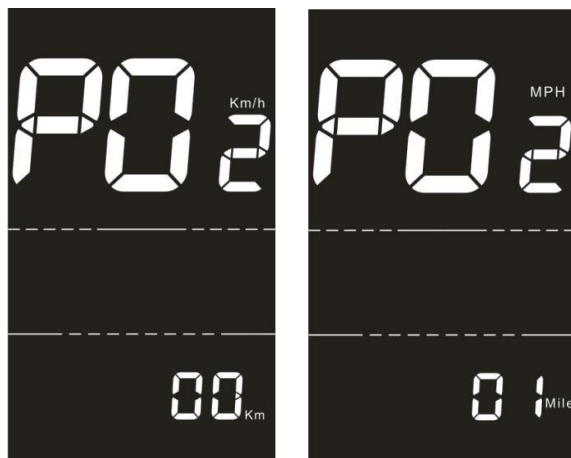
1.Backlight Brightness Adjustment

P01 is the backlight brightness setting, 00 means darkest and 03 means brightest.



2.Set Units

P02 is the metric and imperial setting, 00 for kilometers & km/h or 01 for miles & mph.



3.Auto Shut-off Time Setting

P04 is the automatic shutdown time setting. This display is equipped with automatic shutdown function for a long time without any operation, the available automatic shut- down time range is 1~60min, 00 means no automatic shut- down.

***Factory default is 10min automatic shut- down.**



4. Pedal Assist Level

P05 is the Pedal Assist Level setting. The available options are: 0-3,1-3,0-5,1-5,1-7,0-7,0-9,1-9.

Short press "**i**" button twice to enter the parameter setting state, short press "**+**" / "**-**" button for parameter selection. Then short press "**i**" button to save parameter settings and return to the parameter selection setting interface.

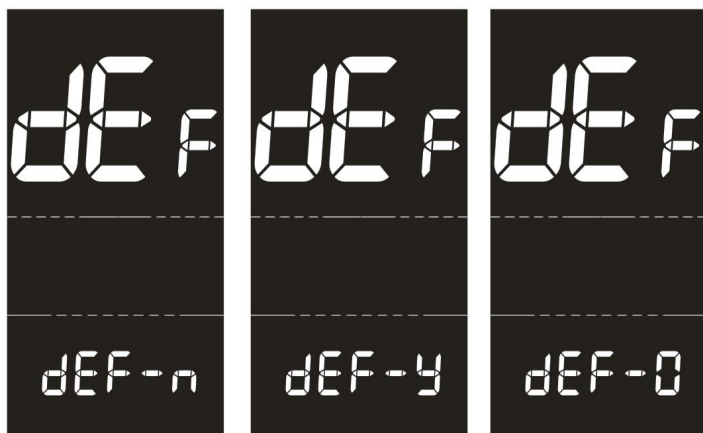
5. Restore Settings

dEF - restore factory default parameter settings.

dEF-Y - restore default settings.

dEF-N - no need to restore.

Under the condition of the 0 speed in the main interface, press and hold the "**+**" and "**Ⓢ**" button for more than 2S to enter the restore factory default parameter setting interface. Short press "**+**" / "**-**" button to switch. If "Y" is selected, then long press "**i**" button for more than 2S, it will show "dEF-0" for a period of time and automatically start to restore the factory default setting. After restore default completion, it will automatically exit and return to the main interface.



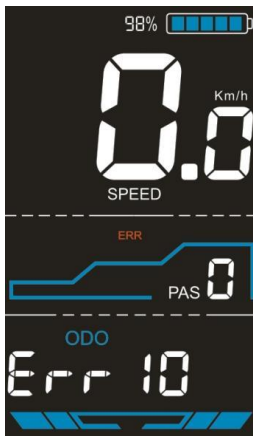
6. TRIP Reset

P16 is the single mileage **zero-reset** setting. 00 means no **zero-reset** and 01 means single mileage **zero-reset**.



7. Error Code Indicator

When the electric control system fails, it will automatically show the error code. For details, please see below sheet.



Error Code	Definition
21	Current Abnormality
22	Throttle Abnormality
23	Motor Phase Abnormality
24	Motor Hall Signal Abnormality
25	Brake Abnormality
30	Communication Abnormality



WARNING

The display has generally been set to a normal state, and it is recommended not to modify the data of the display without special requirements.

Specifications

1. Power supply: 24V, 36V, 48V
2. Rated current: 10mA
3. Max current: 30mA
4. Leakage current after power off: <1uA
5. Current supply to controller: 50mA
6. Working temperature: -10~60°C
7. Storage temperature: -20~70°C

Operating Safety



WARNING

Ride Rattan by taking the sensible measures outlined in this section to maximize your safety. Bicycling is an exciting, delightful, and practical way to get around, but like any sport, it involves risk of injury and death. By choosing to ride a bike, you assume responsibility for those risks.

Be Thoroughly Educated About Your Bike Before Riding It.

Practice riding your bike, braking, shifting gears, and using the throttle and pedal assist systems in a controlled location before venturing into traffic or other risky conditions. The electrical system on your ebike offers various levels of power assistance and lighting for different operating conditions and user preferences. Be sure you understand these features before riding.

Obey All Relevant Local Laws

It is your responsibility to research and understand relevant laws where you ride your bike. Such laws may cover required helmets and safety gears, required lights and reflectors, required hand signals, where you can legally ride a bike (bikes and ebikes may have different restrictions), how fast you can go, what (if any) cargo or passengers you can carry, the rider age, and more.

Before using public transportation—buses, trains, etc.—to transport your ebike, check with the relevant transportation authority for any rules governing weight limits, tire widths, lithium-ion batteries, or any other rules that might pertain to ebikes. When you ride on the road, assume you must, at minimum, follow all of the rules that cars must

follow. For additional information regarding traffic and vehicle laws, contact the road traffic authority in your area.

Carrying Loads Safely

Your LM/LF Ultra is designed to carry one small child on the back.

WARNING

1. Using your LM/LF Ultra to transport a passenger who is not the appropriate size or age for your child seat, or who does not have the health, motor control, or impulse control to ride safely as a passenger, can lead to serious injury or death of the rider or passenger. Read and understand the specifications of any child seat you purchase and all safety-, cargo-, and passenger-related information in this manual. It is your responsibility to assess the ability of a potential passenger to ride safely. If you're not certain, consult a physician.
2. Leaving a child unattended on a bicycle creates a VERY HIGH RISK of the bike tipping over, causing serious injury or death. Always remove your child from the bike before you look away or walk away from the bike.
3. To reduce the risk of injury, always closely supervise children if and when you use your LM/LF Ultra near them.
4. Serious injury or death can occur if clothing or body parts contact either wheel or other moving parts while the bike is in motion.

Troubleshooting

Problems	Most Common Solutions
Battery cannot be charged	① Use a multimeter to check if the battery still have voltage. ② Check if the charger indicator is normal. (Red light means charging, green light means fully charged.) ③ The battery case is damaged, stop using the battery and contact us.
The brakes make abnormal noise	Adjust the brake pads or brake discs, as we noted in the picture above.
Motor makes abnormal noise	Lift the rear wheel off the ground and press the throttle to see if the rear works. Then contact us with a video for further solutions.
The tires got flat or could not be inflated	The tires will not be filled with air. Ride the bike after inflating the tires. (The pumping range is 17-18 psi.)

Bike won't work

Possible Causes	Most Common Solutions
Insufficient battery power	Charge the battery
Battery hasn't been turned on	Turn on the battery by holding the battery button for at least three seconds.
Battery not fully seated in tray	Install battery correctly.
Faulty connections	Clean and reconnect connectors.
Brakes are squeezed	Disengage brakes.
Battery non-functional	Test the battery voltage with multimeter and contact us.

Maintenance

Basic Bike Care

- ① Fully charge the battery for the first use. (more than 6 hours)
- ② Do not use the battery in low power level.
- ③ Must use the specified charger for charging.
- ④ Do not charge the battery at high temperature (over 212 Fahrenheit/100°C). Charge at a ventilate place.
- ⑤ If the battery is not in use for a long time, charge the battery at least once a month to keep the battery active.
- ⑥ Keep the battery away from water or any other liquid.
- ⑦ Turn off the battery when not in use.
- ⑧ Fully charged the battery before use each time. It will extend the battery life. If there are problems with the battery, do not charge it anymore and contact us for further solutions.

Frame Maintenance

- ① Pay attention to the frame maintains. Wipe the bike and keep it dry.
- ② Any merchandise with electrical components is not recommended to be exposed to water.
- ③ The warranty of the Rattan does not cover water damage.
- ④ Please try not to store or use the bike in wet condition.

Brake Maintenance

- ① Check brake pads regularly.
- ② Check the brake disc regularly to prevent deform. If it is a hydraulic brake, check regularly to see if any oil leakage.
- ③ Clean the brake regularly.

- ④ Using the front brake by itself can cause excessive stress on components, damage to the bike and parts, loss of control, injury, or death. Always apply the rear brake before applying the front brake, using both brakes for all operations.

Motor Maintenance

- ① Do not try to disassemble the motor.
- ② If there is any problems with the motor, contact Rattan with a video.

Tire Maintenance

- ① Check regularly to prevent air leak.
- ② Check spokes regularly.

Derailleur Maintenance

- ① Check the rear derailleur regularly to see if it changed to every gear (contact us for the video about how to adjust the shifter).
- ② Check the rear derailleur guard to see whether it bent to affect the derailleur or not.

Disclaimer

Ebike performance will vary with rider weight, cargo weight, rider/cargo shape (both contribute to drag), terrain, tire pressure, brake adjustment, throttle vs PAS usage, pedal power, battery charge level, ambient temperature and wind conditions.

Rattan Ebike should be operated in accordance with the Rattan Ebike manual provided with the bike. The warranty will be activated automatically from the date of shipment in a period of one year when Rattan Ebike used in accordance with the user manual. All other obligations and conditions or liabilities, including obligations for consequential damages are hereby excluded. Damage caused by failing to adhere to instructions and warnings issued by Rattan Ebike is not covered under warranty.

We will replace any parts deemed to have been damaged during shipping. Shipping damage must be reported to Rattan Ebike within 14 days of shipment arrival. This applies to all products including bikes and accessories. You will NOT be refunded as compensation for your time or efforts replacing damaged parts. Replacement parts will not be sent until photographic evidence has been provided to Rattan Ebike.

Rattan Ebike may request additional documentation (such as video) to assist with accurately diagnosing the problem and processing the warranty claim.

For warranty services, please contact Rattan Ebike online support by email at **info@rattanebike.com**. Bikes or parts returned without proper documentation may result in delayed service or denied warranty coverage. All unauthorized returns will be refused.

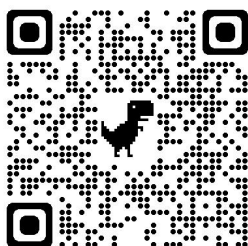
Damage as a result of an accident is not covered under this warranty, and Rattan Ebike is not responsible for repair or replacement of damaged bikes or parts.

Rattan Ebike reserves the right to change the warranty at any time and without notice. Under no circumstances is Rattan Ebike responsible for any damage resulting from damaged, defective, or improperly secured parts. This includes, but is not limited to, damage to personal property, personal injury, or death.

Warranty

Your bike's warranty and other binding legal terms (e.g., terms of purchase, etc.) are subject to change at any time. To view the current warranty, please go to **www.rattanebike.com/pages/warranty-policy**.

Rattan ebike will always be by your side!
Contact us directly by e-mail to **info@rattanebike.com** or
call Rattan ebike phone support: **(562) 488-5588**



Unboxing Videos



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