

Instruction manual

(Original instruction)

Model: RUBY

(Electric Commute Bike)

User Manual



FOREWORD

The following operation manual is a guide to assist you. This manual is not a complete document on all aspects for the maintenance and repair of your bike. The electric bicycle you have purchased is not a complex object however, it is recommended that you consult an pedelec repair specialist if you have concerns as to your ability to assemble, repair, or maintain this product.

It is important for you to understand the electric bike. By reading this manual completely before the first ride, one will get better performance and enjoyment from this product; also it's helpful to extend the life of the electric bicycle.

This operational manual should remain an integral part of the product. Changes or any copy actions in pictures, specifications and descriptions are strictly prohibited.

Table of Contents

The Purpose and Benefit of a Booklet.....	4
Assembly Instructions	6
Operation of Your Electric Bike	10
Best Practices	12
Adjustment and Maintenance	13
Troubleshooting	15

The Purpose and Benefit of this Booklet

This booklet describes assembly and safe operation of your electric bicycle. Pictures are for reference only and may show the similar component from another model.

- **Please Read the Entire User's Manual Before Riding Your New Electric Bicycle**
- ***Always Check Bike. Brakes. Tires and Screws/Nuts for Tightness Before Riding***
- **Recharge your electric bike before your first ride and after any long-distance operation.**

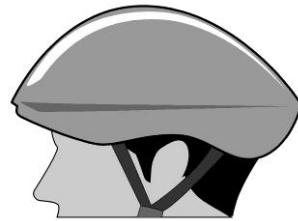
Things you must know before your first ride

Please read this manual carefully before operating your e-bike in order to familiarize yourself with the bike and its different functions.

Please learn and observe all the road rules while riding your e-bike on public roads, including ALWAYS wearing an approved helmet.

The correct helmet should:

- be comfortable to the rider**
- be of lightweight**
- have good ventilation for the head**
- fit snugly**
- cover the forehead**



It is your responsibility to familiarize yourself with the laws of the state where you ride and to comply with bicycle laws

Young children, pregnant women and any persons with vision, balance, or other problems that would prevent them from riding a bicycle should not use the pedelec.

The e-bikes are not designed for two riders. Please ensure only one person at a time is riding the e-bike.

E-bikes are for on road or improved trail use only and should not be used for riding rough trails.

Damage to the bike may occur if used off road.

Do not operate your electric bike after consuming any amount of alcohol or taking any drugs.

All photos are for general reference only and may differ slightly for each model of pedelec.

NEVER carry a passenger on the Electric Bike!

NEVER modify the Electric Bike with unapproved accessories.

NEVER ride through deep water.

NEVER perform wheelies, jumps or trick stunts.

AVOID riding in the rain for long periods of time.

AVOID water contact to motor and electric lines.

ALWAYS keep both hands on handlebars.

ALWAYS apply brakes lightly when riding on rocks or loose surfaces.

ALWAYS use caution when going through puddles.

ALWAYS inspect the Electric Bike before each ride to insure a safe ride.

Attention :

1. For saving the energy and extending the life of battery, please use pedal for assistance on the electric bike when climbing the slope or meeting windy day.
2. Please read the manual carefully, do not use the electric bike before familiar with its performance. Do not lend it to the one who does not know about its operation.
3. When in the bad weather like rain or snow, the brake distance should be increased. When the electric bikes run at the speed of 20km /h, the wet brake distance should be no longer than 15m. Please adjust the brake frequently and change the brake pad in time.
4. For the safety of you and other people, cut the power supply when it is not used.
5. Check the air tension frequently. If the air is too less, the resistance will increase, affecting the running range.
6. The electric element can only be cleaned outside, no need to be maintained for the inside. Do not open it by yourself. (If these parts opened by yourself, no warranty for it)
7. It is forbidden to be overloaded for the electric bicycle. If it is overloaded, the electrical parts will be damaged.(the plastic parts may disformed for the high temperature, or the fuse socket will be damaged for the high temperature) These are not under warranty.
8. Please cut off the power if there is problem on the electrical parts.
9. Please pay attention to national legal requirements when the bicycle is to be ridden on public roads (e.g. lighting and reflectors)
10. The A-weighted emission sound pressure level at the driver ears should be less than 70 dB(A).
11. Please usually check the brakes, tires, handlebar and rim for safety riding.
12. Handlebar cannot affect the reaction of their vehicles to steering and braking.
13. Suggest storing some appropriate spares, such as tyres, tubes, and brake friction-components;
14. The trailer cannot be used on the bicycle.
15. Warning: Not to touch hot surfaces after prolonged use. (e.g. disc brake)



Getting Started

First, unpack your electric bike carefully and save all packing material. Be sure to locate your charger, pedals and any small parts like nuts or screws inside the shipping carton. Sometimes small parts like nuts or screws may come loose during shipping so be sure and check the bottom of the carton and protective wrapping carefully. Keep your packing material until you are through assembling your bike and know that it is running properly. Sometimes small parts like nuts or screws may come loose during shipping so be sure and check the bottom of the carton and protective wrapping

Assembly Instructions

This bicycle was fully assembled, inspected and tuned at the factory and then partially disassembled for shipping.

Your bike arrives in the shipping carton about 95% assembled. To ship the bike, the pedals, seat, front wheel and sometimes the handlebar are loosened or removed.

In order to ensure the cycling safety and using performance, the fastening requirements for the bolts of key places.

Name of clamp bolts	Standard torque /N.m
Display Bracket	1 N.M
Bolt for handlebar	10-12 N.M
Handle bar stem and fork clamp bolt	10-12 N.M
Sunflower fixing bolt	4-6 N.M
Saddle	14-16 N.M
Seat post	Quick release
Front wheel	20-25 N.M
Rear wheel	40-45 N.M
Rack	10-12 N.M

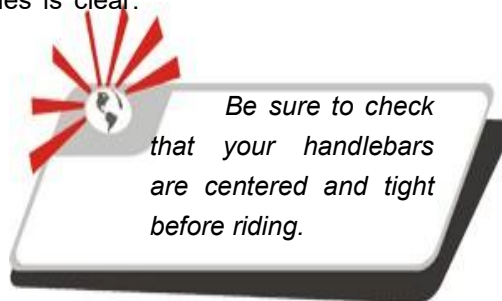
This manual will list all of the steps required for the various models.

The following “basic” assembly instructions will assist in getting the bike ready to ride. If you have questions about your ability to assemble this product, please consult a qualified bicycle technician.

We recommend that two people work together to assemble the electric bicycle

Attach and adjust the handlebar

Your handlebars have two main parts--the bar itself and the adjustable stem. If your bar has been removed for shipping, position the bar in the center of the stem and check, to be sure that your grips are in the right place and the angle of the bar is comfortable. Tighten the screws clamp to hold the bar in place, ensuring all brake cables is clear.

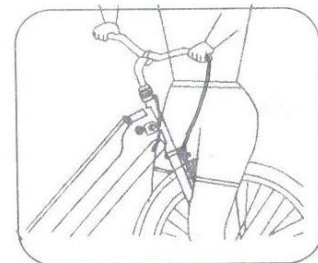


The stem must be inserted to the Minimum depth or lower as indicated on the steer post to insure the safety, see the picture. Tighten the stem screw located on the top of the handlebar stem.

You may adjust the handlebar stem height by loosening the Allen key screw located underneath the stem. Tighten the stem, adjustment screw securely after positioning the stem.



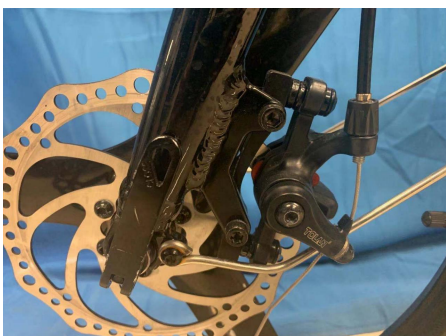
Check that the forks and the handlebars are facing forward and straight. Stand at the front of the handlebar, vise the front wheel by your legs and hold the handlebar, adjust the handlebar and the body of the bicycle to form an angle of 90degree, see the picture.



Some models have a light/power meter console that attaches to the handlebar. Attach this with the plastic brackets and screws provided.

Check and adjust the disc brake

Th rear brake is operated with the left brake handle, the front brake is operated with the right brake handle normally .



Always check that both your front and rear brakes are properly adjusted before riding your bike.

Squeeze your brake together and slip the cable into the trough. You may need to adjust the cable length by loosening the nut and sliding the cable through to the proper position.

Retighten nut to hold the proper position.

Adjust the brake pads on either side by using an Allen wrench so that they make contact on the metal wheel rim and not the tire. Be sure they are straight, and the distance is 1-1.5mm between rim and the two brake pads.

The pads will be close when adjusted properly.

There are some small adjusting screws on the sides of the brake pad levers that can be used to adjust the distance of each side. If the distance of the two brake pads to the rim is different, adjust the spring adjustment screw on the two brake arm of the fixed mount till the distance of the two sides is the same, making sure that it can brake efficiently. If the brake pad is damaged severely, please replace it in time thus ensure the efficiency of the brake

Adjust the Saddle

Your seat will tip forward for easy battery removal on most models.

Your seat height is adjusted by a quick release. Pull the quick release lever, insert your seat post to at least the minimum insertion line marked on the post. Tighten the adjusting nut by quick release lever, then push the quick release lever to the closed position.

The seat angle is adjusted with the nuts that attach the seat to the seat rail. Ensure that the nuts are tightened firmly and that the seat does not move forward or back while you are sitting on it.

Minimum height of the saddle: move the quick release handle to the OPEN position, then put the saddle post to the lowest place, and when the saddle post cannot enter into the saddle tube of the frame, it is the minimum height of the seat.

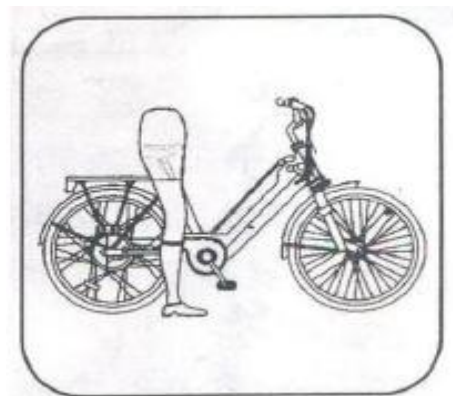


Adjustment of the seat post

The adjustment method is as follows :

When you sit on the saddle to tread on the pedal flatly by heel when the pedal is at the lowest position, legs slightly stretch, and at this time it is the most suitable height; if the rider can tread on the pedal only by toes or legs cannot stretch slightly, fatigue and sports injury will be caused, so there is a careful need for adjustment of the height of the saddle post.

Loose the hand release of the seat post, take out the seat post ; Adjust the screw , Take the seat post back the the frame tube as former station, and tighten the clamp of the seat position.



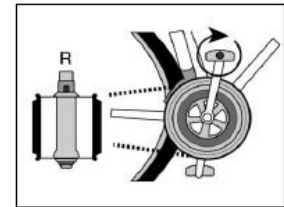
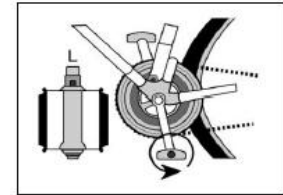
Attach the Pedals

Pedals are marked „L” and „R” on axle end, Screw the pedal marked „L” into the left side of crank and „R” to right.

(1).The right pedal attaches to the chain side crank arm with (clockwise) thread

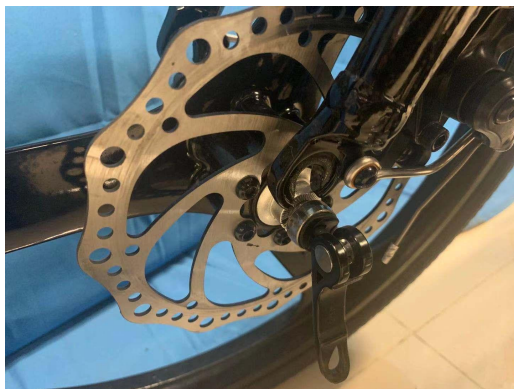
(2). The left pedal attaches to the other arm and has a left-hand (counter clockwise) thread.

Check your pedals before each ride to ensure that they are tight. If you ride your bike with loose pedals, you may strip the threads that hold the pedal to the crank.



Attach the front wheel

Slip the wheel into the forks. Slip on the safety catches and then the nuts on both sides. Spin the wheel and check whether it is straight, If your bicycle is fitted with quick release axles, make sure locking levers are correctly tension and in the closed position.



Information of the battery and charger

Battery	
Manufacturer:	Zhejiang Tianhong Li
Model:	TLZ
Technical parameter:	48V15AH
Charger	
Manufacturer:	Wuxi Dpower technology Co.,Ltd
Model:	DPLC110V55
Technical parameter:	48V2A ,110-240V input

Operation of Your Electric Bike

Your e-bike is driven by a motor embedded in the hub of the rear wheel and cannot be driven directly by throttle. The motor is powered by a battery. The amount of power delivered to the motor, and hence the accelerating force on the e-bike, is controlled by you in a way according to the power-assisted mode you choose.

Electric -Assisted:

You must turn on the battery to use the e-bike in Electric-Assisted mode.

In the Electric-Assisted model, power assist is triggered when you pedal forward, and power assist stop when you stop pedaling. In other words, power assist happens as long as you pedal. You don't need to pedal hard. All you need is to apply a light force to the pedals continuously to maintain the current flow. When you apply one of the brakes, power-assist will automatically stop. allowing the e-bike to slow down and stop. Power assist will turn itself off when the e-bike has reached the maximum speed of 25km/h.

Charging Your Battery

Fully charge your battery before your first ride and then after any operation, especially after long distance riding

Your charger plugs directly to your battery pack with either a round (RCA or XLR) connector or the same 3-prong plug as your bikes power cord. ***You must plug your charger to the bike first and then to the wall outlet.***

NEVER PLUG A POWER CORD FROM A WALL OUTLET DIRECTLY INTO THE BATTERY! YOU MUST USE YOUR CHARGER!

The light on the charger will be red while charging and turn green when finished. When the charger's light turns green, please keep on charging the battery for 1-2 hours to ensure that the battery has a longer usage life. Then unplug your charger from the battery and the wall.

Always charge your battery before it gets too low. If you let your pack run completely dead, it may not re-charge. It is a good idea to turn the key to the position OFF and remove your key after any ride so that it will not be left on accidentally.

To unlock the pack, push the key in slightly and turn to the left. It can then be removed. Push-in and turn right to lock it on.

The red button on top of the pack shows the power level when pushed. The first light only comes on when the battery is too low to run the bike. The next lights indicate low, medium, and full. The lights on the handlebar also show the level.

Remember: the sooner you charge after riding the longer your pack will last.

The Lithium battery is built with circuitry that prohibits over-charging and excessive discharging.

The battery charger is designed specifically for the bike; connecting the battery to any other charger will void the warranty

It is important for the customer to follow the instructions on the battery charger label.

Operation of Your Display

There are 5 power-aid levels, which are level 1~5”



Long press the “M button” to switch on the pedelec, and press “+ “ and “ - “ button to change assist levels. Short press the “M” button to change info on the screen

Long press “- button” to turn on the 6KM/H function ,which allow riders shove along with a speed of 6KM/H ,Its forbidden to long press the “- button” when cycling

Operation of Your Lights



Long press + button to turn on/off the front/Rear light

Rear light has the brake function ,which means,when you brake,the rear light warns the riders behind

Operation of your battery

The battery could be removed from the frame which allow you to charge on/off the bike

Kindly note that all the key&lock have a unique Identifier,which means when you lost the keys ,you can ask the dealer to prepare a new key with the number on the lock



Insert the key to the lock ,rotate to right,the battery will Pop up automatically then release the battery



Best Practices


1. Please observe the traffic regulations.
2. *Keep both your hands on the handlebars ready to brake while riding.*
3. Always charge your battery after riding.
4. Don't run your battery dead or extremely low. If you do, charge as soon as you can.
5. Remember to turn off the key when you stop.
6. Always remove the key when you are through riding. If left on, the battery will slowly drain.
7. Running distance per charge
8. Under standard road conditions (concrete and cement road without wind resistance and with temperature around 25°C, the battery capacity attenuation≤5%), the running distance per charge is up to at least 30 Km.

Warning:

1. The rated loading capacity for the rear rack is 25kg. Do not overload. The max tire size would fit the rear rack is 26 inch.
2. The total loading capacity should be not over than 150 kg (Rider + carrier) . Bicycle weight: 30 kg.
3. The fastener of the whole electric bicycle should be checked frequently.
4. Please put on your helmet when riding the electric bike.
5. If there is no rear rack on the electric bicycle, do not fix the rear rack by yourself.
6. The rear rack cannot draw a trailer.
7. When the goods are put on the rear rack, the reflector or the lights should not be blocked. The goods should be put on the two side of the rear rack evenly.
8. Consumers are not allowed to modify luggage racks by themselves.
9. Consumers need to understand that once the luggage rack is loaded, it will affect the overall handling of the bicycle.
10. Consumers should make sure that the luggage rack is loaded. It must be in accordance with the manufacturer's instructions. There is no belt, and the rope is rolled into the wheel.
11. Any goods only can be safety on the carrier.
12. The luggage carrier is not suitable for insert the child seat.

The match of the electric bicycle and people

Frame Sizing Guide		
Approximate Rider Leg Length	Suggested Frame Size for Racing/Touring Bicycle	Suggested Frame Size for Mountain or Hybrid Bicycle
61-69cm / 24-27 inches	-	37cm / 14.5 inches
66-76cm / 26-30 inches	-	43cm / 17 inches
71-79cm / 28-31 inches	50cm / 19.5 inches	45cm / 18 inches
76-84cm / 30-33 inches	55cm / 21.5 inches	50cm / 19.5 inches
79-86cm / 31-34 inches	57cm / 22.5 inches	52cm / 20.5 inches
81-89cm / 32-35 inches	60cm / 23.5 inches	53-56cm / 21-22 inches
86-94cm / 34-37 inches	63cm / 25 inches	58-60cm / 23-23.5 inches



Adjustments and Maintenance

-Your e-bike is designed for regular road for a single person. Using your e-bike for extreme maneuvers, such as extreme off-road use, jumping, or carrying excessive load will damage the e-bike and could cause serious injury.

-Do not use high pressure water streams to clean your e-bike, as water might seep inside the motor or the wiring compartment and cause rusting of electric parts or short circuits. Please use damp cloth with neutral detergent to clean the bike body. Do not use alkali-based or caid based detergent such as rust cleaners as it may result in damage and/or failure of the bike body.

-Avoid parking your e-bike outside when there is rain or snow. At the end of a trip where there was rain or snow, bring the e-bike inside and use a clean, dry towel to eliminate any wetness.

-During daily use, please keep the controller clean and dry. keep it away from water, vibration and contamination, otherwise the controller may be damaged.

Warning!

Don not over lubricate. If oil gets on the wheel rims or the brake shoes, it will reduce brake performance and a long distance to stop the bicycle will be necessary. Injury to the rider or to others can occur.

- The chain can throw excess oil onto the wheel rim. Wipe excess oil off the chain. Keep all oil off the surfaces of the pedals where your feet rest.

-Using soap and hot water, wash all oil off the wheel rims, the brake shoes, the pedals, and the tires. Rinse with clean water and dry completely before you ride the bicycle.

-Using a light machine oil (20W) and the following guidelines, lubricate the bicycle:

Pedal	Every 6 months	Put 4 drops of oil where catch pedal axle goes into the pedal
Chain	Every 6 months	Put 1 drop of oil on each roller of the chain
B.B.	Every 6 months	Contact a professional technician
Motor	Every 1 year	Contact a professional technician

Some instructions on battery maintenance and charging

1. Please charge the battery for 6-10 hours after its energy is consumed for 50%-70% of its total energy, in this way, the battery life will be longer. If you leave the battery pack in your stock in less energy condition, it will sleep to die easy. So please charge the battery pack full after each long-distance ride. Do not charge the battery for a long time (that is "exceeds 10 hours") in summer; in case that the battery will be calorifacient and broken.

2. Recharging battery once a month during the period of storage

3. Charging temperature: 0°C ~ 45°C

4. Battery pack might not been fully charged when temperature is over low or over high.

When the battery is charged, its temperature may become a little higher, it is normal under the temperature of 50°C. If the charger indicator is useless when the battery is full charged or the battery is very hot (that exceeds 50°C), please come to the seller to find maintenance at once.

5. Do not make the charger jolty in the rear box if there is one box attached; and the charger should be far away from water. The impact and shake should be at the lowest degree when the battery is moved.

6. Each special designed charger is provided for each battery pack. Do not use other type of charger for fear of burning out battery and causing danger.

7. Battery storage conditions: cleanliness, coolness, dryness and airiness, temperature 0°C ~ 45°C. No solarization, fire, water-logging and mixing the battery together with corrosive substance during battery shipping and storage.

8. Please let the key on the head of the battery case be "on" when you charge it.

9. Please sure that there is no short-circuit in your wall socket for fear of burning out battery and causing danger.

10. Please don't pull out the power key when you are riding the bike forward under high speed.

BATTERY DISPOSAL

WARNING!

NEVER throw batteries away in the trash. Take the exhausted battery to a federally or state-approved battery recycle center. Call your waste collection service to find out if they offer disposal of batteries.

The battery is always removed during maintenance, and the specification of vehicle cannot be tampered.

Faults and Trouble-shooting

No	Faults	Causes	Troubleshooting
1	Battery gauge lights up but bicycle does not operate	1) Power cord is not properly plugged into battery 2) Brake cut-off engaged or faulty 3) Speed sensor adjusted too low 4) Blown fuse 5) Loose motor wire connector 6) Loose connectors	1) Properly plug in power cord to battery 2) Disengage brake cut-off or replace 3) Adjust speed sensor 4) Replace fuse 5) Check motor wire connector 6) Check all connectors
2	Bicycle operates but battery gauge does not light up	1) Loose connectors 2) Damaged wires 3) Faulty battery gauge	1) Check throttle connectors 2) Inspect all wires 3) Replace battery gauge
3	Bike has reduced speed and/or range	1) Speed sensor is not adjusted 2) Low batteries 3) Faulty batteries 4) Low tire pressure 5) Brakes dragging against rim	1) Adjust speed sensor 2) Charge batteries for recommended time 3) Replace batteries 4) Inflate tires to recommended pressure
4	Bicycle has intermittent power	1) Loose connectors 2) Loose fuse 3) Damaged wires	1) Check all connectors 2) Check fuse connector 3) Inspect all wires
5	Charger light does not operate	1) Power outlet faulty 2) Charger is not plugged to wall or battery properly 3) Charger light or charger is	1) Try another outlet 2) Check all plugs 3) Replace charger
6	Charger completes charging in an unusually short amount of time	1) Faulty charger 2) Faulty batteries	1) Replace charger 2) Replace batteries
7	Chain jumping off freewheel sprocket or chain ring	1) Chain ring out of true 2) Chain ring loose 3) Chain ring teeth bent or broken 4) Rear or front derailleur side-to-side travel out of adjustment	1) Re-true if possible, or replace 2) Tighten mounting bolts 3) Repair or replace chain ring/set 4) Adjust derailleur travel
8	Gear shifts not working properly	1) Derailleur cables sticking/stretched/damaged 2) Front or rear derailleur not adjusted properly 3) Indexed shifting not adjusted properly	1) Lubricate/tighten/replace cables 2) Adjust derailleur 3) Adjust indexing

Regular Inspection List

Before every ride, it is important to carry out the following safety checks:

1.Brakes

- Ensure front and rear brakes work properly
- Ensure brake shoe pads are not over worn and are correctly positioned in relation to the rims.
- Ensure brake control cables are lubricated. correctly adjusted and display no obvious wear.
- Ensure brake levers are lubricated and tightly secured to the handlebar.
- Ensure no hands or fingers on brake discs after braking.

2.Wheels and Tires

- Ensure tires are inflated to within the recommended limit as displayed on the tire sidewall.
- Ensure tires have thread and have no bulges or excessive wear.
- Ensure rims run true and have no obvious wobbles or kinks.
- Ensure all wheel spokes tight and not broken.
- Check both tires regularly and replace them with new once if needed in case of brake failure.

3. Steering

- Ensure handlebar and stem are correctly adjusted and tightened, and allow proper steering.
- Ensure that the handlebars are set correctly in relation to the forks and the direction of travel.
- Check that the headset locking mechanism is properly adjusted and tightened.
- If the bicycle is fitted with handlebar end extensions. Ensure they are properly positioned and tightened
- when loaded with the handlebar, the rider's response to steering and braking can be adversely affected;

4.Frame and Fork

- Check that the frame and fork are not bent or broken.
- If either are bent or broken, They should be replaced.

5.Chain

- Ensure chain is oiled, clean and runs smoothly.
- Please go to the qualified technician for adjusting the correct chain tension
- Extra care is required in wet or dusty conditions.

7.Bearings

- Ensure all bearings are lubricated, run freely and display no excess movement, grinding or ratting.
- Check headset, wheel bearing, pedal bearings and bottom bracket bearings and Lubricate it regularly

8.Cranks and pedals

- Ensure pedals are securely tightened to the cranks.
- Ensure cranks are securely tightened to the axle and are not bent.

10.Accessories

- Ensure that all reflectors are properly fitted and not obscured
- Ensure all other fittings on the bike are properly and securely fastened, and functioning.
- Ensure the rider is wearing a helmet
- Ensure that the maximum inflation pressure for a conventional or tubular tyre, according to the lowest value between maximum inflation pressure recommended on the rim or the tyre.

11.Motors

- Ensure no hands or fingers on motors after riding.

WARNING 1 — If any safety-critical components need to change. Please go to authorized retailer for changing genuine replacement.

WARNING 2 — As with all mechanical components, EPAC is subjected to wear and high stresses. Different materials and components may react to wear or stress fatigue in different ways. If the design life of a component has been exceeded, it may suddenly fail, possibly causing injuries to the rider. Any form of crack, scratches or change of colouring in highly stressed areas indicate that the life of the component has been reached and it should be replaced.

WARNING 3 — This assembly and operation manual shall remain an integral part of the electric bicycle. When you transfer the electric bicycle to others, please enclose with this manual as it contains the important safety guidance and operation instructions. Anyone riding the electric bike shall carefully read the safety guidance and operation instructions first.

12 MONTH LIMITED WARRANTY

PLEASE SAVE YOUR SALES RECEIPT

The limited warranty as contained herein is exclusive and in lieu of all other warranties express or implied. There are no warranties that extend beyond the description in this limited warranty.

The manufacturer warrants this product, including the batteries, charger, motor, controller to be free of manufacturing defects for a period of 12Months from the shipment date (10Months from DATE OF PURCHASE). This limited warranty does not cover the normal wear and tear, tires, inner tubes, cables, or any damage, failure, or loss caused by improper assembly, set up, storage, or maintenance.

This warranty covers normal use only. It does not cover the product due to misuse, neglect, accident or improper service.

Any attempt of repair done by the consumer (other than tires and normal adjustments) will void the warranty.

User services and privacy policies

How you access and control your personal information

1. We will endeavor to take appropriate technical measures to ensure that you can access, update and correct your registration information or other personal information provided when using our services. When accessing, updating, correcting, and deleting the foregoing information, we may ask you for some control panel design to ensure user safety.
2. We take appropriate security measures to protect data from unauthorized access, modification, disclosure or destruction. These include an internal review of our data collection, storage and processing methods, as well as security measures(including appropriate encryption and physical security measures to prevent unauthorized access to our systems for storing personal data.
3. As a result of your own actions or force majeure, which may result in the disclosure, disclosure, or acquisition, use, transfer of content that may involve your privacy or what you believe to be private information, you are solely responsible for the adverse consequences, and we are not responsible for this.