USER'S MANUAL
FOR
Model: FW-R10

Name of Pedal Electric Assistance Bicycle Components

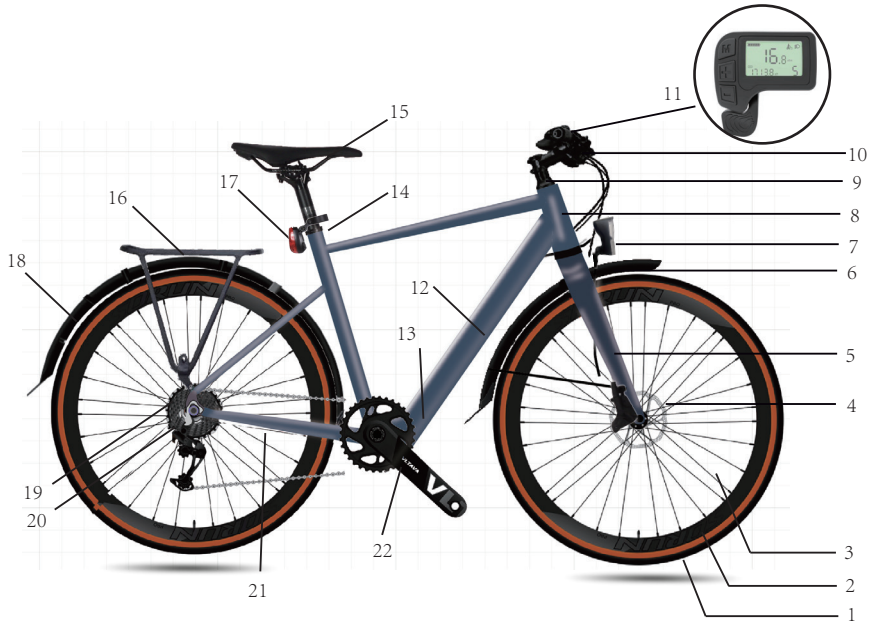


fig.1 Electric Bicycle with Carrier Battery-pack

① tire& tubes ②rims ③spokes ④front brakes ⑤front fork ⑥front mudguard ⑦head light

⑧ frame ⑨handlebar & stem ⑩brake levers ⑪operation panel ⑫battery pack ⑬controller box

⑭seat clamp ⑮saddle & seat post ⑯rear carrier ⑰rear light ⑱rear mudguard ⑲rear brake

⑳hub motor ㉑cable joint ㉒cranks & chain wheel

* for handle panel, it may vary from model to model, such as LCD and LED panels in different design and function, and its user's manual may be provided separately, accompanied with your bike.

Congratulations on your purchase, of this Electric Bike, it has been carefully designed and manufactured according to the latest international quality standards, including:

UL2849
UL62368/UL1030

Please read this instruction manual carefully and thoroughly before riding. It contains important information on safety, and maintenance. It is the owner's responsibility to read this manual before riding.

The user's instruction manual includes two sections, one is mechanical section, and another is electric section. This instruction is applied to the electric bikes with following equipment:

For mechanical equipment:
- Derailleur/Roller brake
- Derailleur/V-brake or disc brake
- Internal gear hub/Roller brake or coaster brake
- Internal gear hub/V-brake or disc brake

For mechanical equipment, an electric bicycle differs only slightly from a non-electric bike.
- Derailleur/Roller brake
- Derailleur/V-brake or disc brake
- Internal gear hub/Roller brake or coaster brake
- Internal gear hub/V-brake or disc brake

For electric equipment:
- The battery-pack with rear carrier or on the down tube
- The motor in the rear hub or front wheel hub
- The controller on a box best to battery or integrated to the battery-pack
- Operation panel is installed to handle bar

Should any original component prove defective in terms of workmanship within its warranty period, we will replace it. Warranty period for the electric bikes is as follows.

Frames and Forks: - 1 year
Electrical Components: - 2 year with proper care and maintenance
All other components: 7 months
This warranty does not include labors and transportation charges. The company cannot accept any responsibility for consequential or special damage. This warranty applies only to the original retail purchaser who must have a proof of purchase in order to validate any claim. This warranty applies only in the case of

defective components and does not cover the effects of normal wear, nor damage caused by accident, abuse, excessive loads, neglect, improper assembly, improper maintenance or the addition of any item inconsistent with the original intended use of the bicycle.

No bicycle is indestructible and no claims can be accepted for damage caused by improper use, competition use, stunt riding, ramp jumping and leaping or similar activities. Claims must be submitted through your retailer. Your statutory rights are not affected.

The company reserves the right to change or amend any specification without notice. All information and specifications within this brochure are correct at time of printing.

SECTION I

Contents:

1. Conditions For Riding This Pedal Electric Assistance Bicycle

This pedal electric assistance bicycle is designed for riding on road or riding on a paved surface where the tires do not lose ground contact. It must be properly maintained according to the instructions found within this book;
The maximum weight of the rider and load is required to be less than 100kg.

⚠ **Warning**: You are warned that you assume the risk for personal injury, damage or losses if you breach the above conditions and, the warranty will be void automatically.

2. Selection and Set-up

2.1 Saddle and Handlebar Stem Adjustment
The seat can be easily moved either up or down. Adjust the seat to keep the rider's knee maintaining a slight bend when his foot is in the lowest pedaling position (refer to fig.3)Handlebar stem is approximately on the same level as saddle or slight lower. For some more adjustment tips, please refer to fig.4 as below:

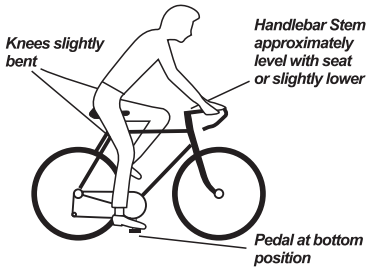


fig. 3

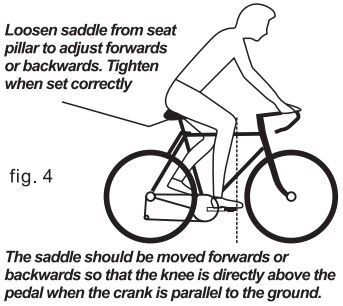


fig. 4

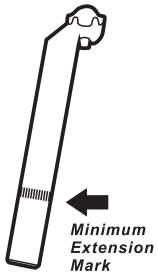


fig. 5 Minimum insertion mark

⚠ Warning: if your seat post is not inserted up to the minimum insertion mark, the seat post may break (refer to fig,5)
Once the saddle is at the correct height, make sure the seat post should be up to its insertion mark.

⚠ Warning: Handle stem minimum insertion mark on traditional quill stem must not be visible above the top of headset.
If the stem is extended beyond the minimum insertion mark the stem may break or weaken the fork steering tube.

3. Safe Cycling and Safety Tips:

3.1 Checking Points Before Riding
Before you ride your pedal electric assistance bicycle always make sure it is in a safe operating condition. Particularly check that your:

- Nuts, bolts, quick-release and parts refastened tight and not worn or damaged.
- Riding position is comfortable.
- Brakes are operating effectively.
- Steering is free with no excessive play.
- Wheels run true and hub bearings are correctly adjusted.
- Wheels are properly secured and locked to frame/fork.
- Tires are in good condition and inflated to correct pressure.
- Pedals are securely tightened to pedal cranks.
- Gears are correctly adjusted.
- All reflectors are in position.

After you have made any adjustment to your electric bicycle, check that all nuts and bolts are securely tightened and cables are free from kinks and fixed securely to the electric bicycles frame. Every six months, your electric bicycle should be professionally checked to ensure that it is in correct and safe working order. It is the responsibility of the rider to ensure all parts are in working order prior to riding this electric bicycle.

3.2 Do Not When Riding

Do not ride without wearing an approved helmet, which must meet European/USA standard or the same effect (comply with the law, rule or regular in your local area)

- Do not ride on the same side of road as oncoming traffic;
- Do not carry a passenger unless the cycle is equipped to do so;
- Do not hang item over the handlebars to impede steering or catch in the front wheel
- Do not hold on to another vehicle with another hand;
- DO not ride too closed to another vehicle.

⚠ **Warning** of Wet Weather Riding: No Brake work as well under wet or icy conditions as they do under dry conditions. The braking distance in wet weather would be longer than those in dry, and you should take special precautions to assure safe stopping. Ride slower than normal and apply your brakes well in advance of anticipated stops.

⚠ **Warning** of Night Riding: we recommend you minimize the times you ride after dark. If you have to be out on your electric bicycle at night, you must comply with the relative law, rule or regulations in your local area, using a headlight(white) and taillight(red) on your electric bicycle in addition to the all-around reflectors fitted. For more safety, wear light colored clothing with reflective stripes. Check that the reflectors are firmly secured in the correct position and clean and not obscured. Damaged reflectors must be replaced immediately.

4.Routine Maintenance Check and Lubrication

⚠ **Warning** : As with all mechanical components, the bicycle is subjected to wear and high stresses. Different materials and components may react to wear or fatigue in different ways. If the design life of a component has been exceeded, it may suddenly fail possible causing injuries to the rider. Any form of crack, scratches or change of coloring in highly stressed areas indicate that the life of the component has been reached and it should be replaces.

⚠ **Warning**: It is important to use only genuine replacement parts for several safety-critical components. To keep the electric bicycle functioning well, the following routine maintenance lubrication is necessary for you (refer to fig.6):

Half-Yearly- Remove and clean, lubricate chain, derailleur gears and all cables. Check and replace as required.

NB-Wash cycle weekly with warm soapy water and dry it rubbing with a soft cloth

A-Tyres Check for cuts and wear Maintain pressure indicated on tires wall for maximum Efficiency	E-Disc brake Lightly oil exposed cables monthly. Maintain adjustment and replace brake blocks when worn, brake cables when frayed.	H-Stem Ensure stem nuts and bolts are light.
B.C-Wheel Check that axles are sealed and secured properly. Rim should be kept free from wax, oil, grease and glue. Check for loosed or missing spokes. (see warning below)	F-Fork Dealer adjustment only.	I-Handlebar Check handlebar bolt is tight. Check brake lever securely mounted to bars and brakes stop smoothly and efficiency.
D-Wheel hub Grease bearing monthly. Adjust cones to avoid free play side to side.	G-Headset Remove, clean and re-grease bearing yearly, checking if replacements required.	J.K-Saddle and Quick release Check the quick release is tight, ensure the saddle and Quick release are undamaged, replace if necessary

L-Battery You can refer to the manual for electrical parts	N-Pedals Lightly oil bearings monthly.	P-Rear derailleur Check the rear derailleur is correct position. Front and rear lightly oil.
M-Cranks Keep light oiled weekly, clean and lubricate half yearly.	O-Chain Keep light oiled weekly, clean and lubricate haft yearly.	

⚠ Warning : Every six months, your pedal electric assistance bicycle should be professionally checked to ensure that it is in correct and safe working order. It is the responsibility of the rider to ensure all parts are in working order prior to riding. It is very important to check the rim wear monthly and monitor the rim wear line, if this groove becomes invisible the rim is past its safe working life. A severely worn rim is very dangerous and must be replaced. Adjust the brake shoes accordingly to make the clearance at 1-1.5mm from the track of rim.

5. Assembly instruction

Here is some important information for electric bicycles assembly, which is very useful for your maintaining your electric bicycle, and especially helpful when you purchase our e-bikes which is partly assembled and packed in a carton.

Step 1: Preparation:
Take the electric bicycle and parts out of the carton and detach all parts that are tied to the frame. Be careful not to scratch the frame or cut the tire when removing the wrapping. And please do not rotate the handlebar either until disassembly, otherwise it may break the cables. Then carefully examine the carton for loose parts and make certain that no parts are left.

Step 2: Seat Assembly (refer to fig.7)
1. Loosen the seat clamp nuts (both sides)
2. Insert the seat post into the seat clamp. The seat post must extend at least 1/4 inch(6-7mm) above the top edge of seat clamp.
3. Re-tighten the seat post nuts on the both sides (hand tight)
4. Push the seat post into the seat tube of the electric bicycle frame and rotate the seat until the tip of the seat is directly above the top tube of the frame.

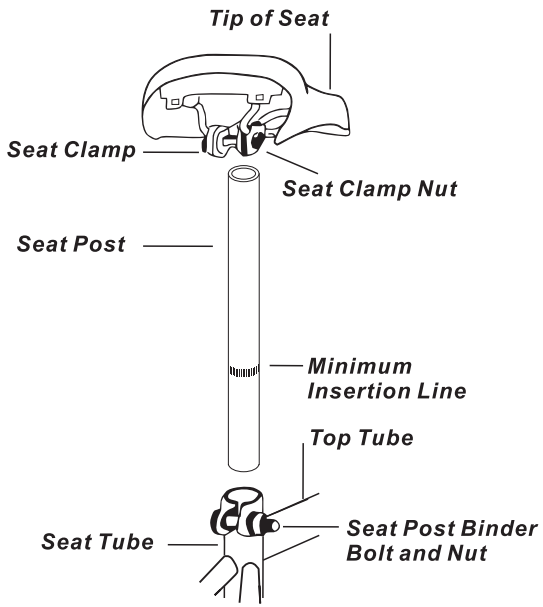


fig.7 seat assembly

THE SEAT POST MUST BE INSERTED INTO THE SEAT TUBE AT A DEPTH WHERE THE MINIMUM INSERTION LINE IS NOT VISIBLE!!!

5. Open the seat post quick release lever(Fig.8). Insert the seat post into the seat tube to sufficient depth so that the minimum insertion line is no longer showing.
6. When you are satisfied with the height of seat post, close the seat post quick release lever. The tightness of the lever is adjusted by rotating the adjustment nut opposite the quick release lever. Turn the nut by hand to adjust the tension while holding the lever stable.

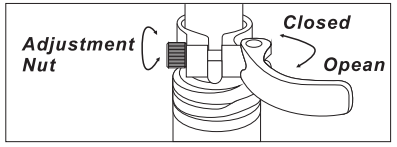


Fig.8 Opening and adjusting a quick release

Step 3: Handlebar & Handlebar Stem Assembly (refer to fig.9 and 10)

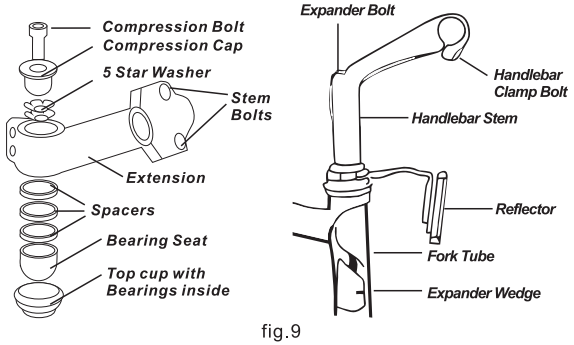


fig.9

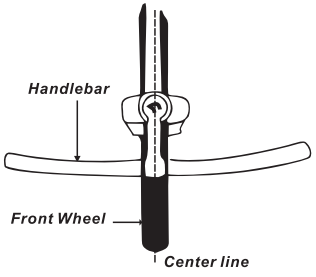


fig.10 Handlebar and Handlebar Stem Assembly

As a usual situation, in our factory, the handlebar has been pre-assembled together with brake levers, shifter levers and grips. Be sure that the longer cable is fixed to the right lever (rear brake) and shorter cable to the left (front brake), or according to your local rule and practice (Note: In some area, such as UK, the cables are required to be arranged in the opposite way).

Since your cycle may be fitted with an adjustable, a standard stem or an A-head stem (refer to fig.9), you must always check that all the bolts are tight before cycling. Based on the situation of standard handlebar stem, please follow the instruction below:

1. Push the handlebar stem into fork tube (head of the frame) to the minimum height line that is marked on the side of the handlebar stem. It might be necessary to loosen the expender bolt so that the stem can slide into the fork tube, until you get your desired height of the handlebar stem.
2. Align the handlebar stem with the front wheel (see fig.10). Tighten securely the expender bolt with as adjustable wrench. Note: Some models require a 6mm allen key. (Tightening torque: 18N.m or 14footlbs.torque).
3. Loosen the handlebar clamp bolt and nut from the stem.
4. Position the handlebar at the desired angle. Make sure that the stem is in the center of the handlebar.
5. Tighten securely the handlebar clamp bolt (Tightening torque: 18N.m or 14footlbs.lbs).
6. Be sure that your handlebar and stem assembles are properly tight before riding. The handlebar should not rotate in the stamen you straddle and grip the front wheel between your knee, the handlebar should not be able to turn when you apply pressure horizontally. Refer to (fig.10)

Step 4: Attaching Pedals (refer to fig.11)

1) The pedals are marked with either a "R" or "L" on the threaded end of the pedal axle.
2) Screw the pedal marked by" R" into the right side of the crank assembly (chain side of bicycle). Turn the pedal (by hand) in the clockwise direction. Tighten securely with an adjustable wrench or the plate wrench special for pedals (Tightening torque: 34N.m or 26 lbs).
3) Screw the pedal marked by "L" into the left side of the crank assembly. Turn the left pedal (by hand) in the counterclockwise direction. Tighten securely with an adjustable wrench or the plate wrench special for pedals (Tightening torque: 34N.m or 26 lbs).

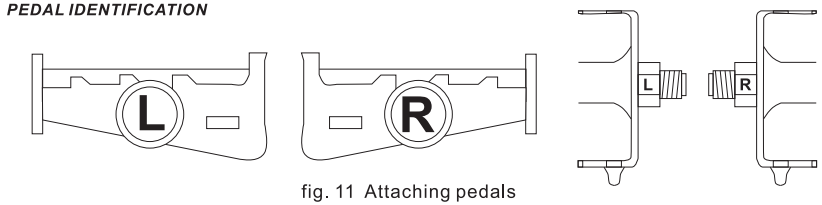


fig. 11 Attaching pedals

Step 5: Brake adjustments

The brake on your bicycle should have been adjusted correctly in our factory, however, as cables do stretch, it is important to check the adjustment of your brakes after your first riding. Most brakes will need some adjustment after being used a few times.

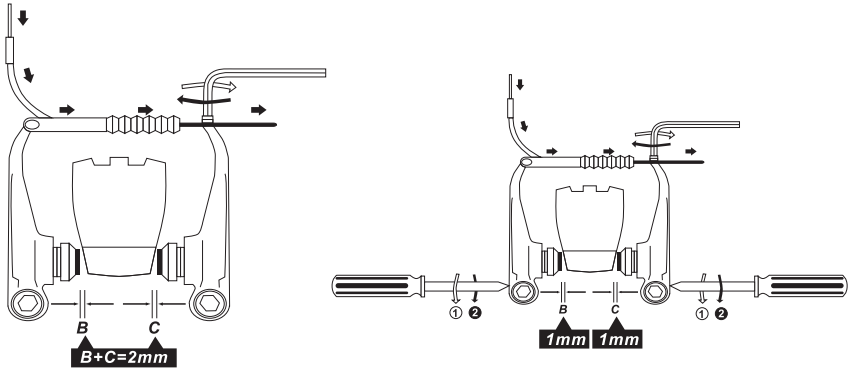
Note: to assure smooth braking. Wheels must run true and be correctly adjusted, with the rim brake track free from dents and kinks.

V-brake Adjustment (refer to fig. 12)

A. Press the inner cable through the inner cable lead, and after setting so that the total of the clearance between the left and right shoes and the rims is 2mm, tighten the cable fixing bolt, tightening torque: 6-8N.m or 5-6 lbs

B. Adjust the balance with the spring tension adjustment screws

Depress the brake lever about 10 times as in normal brake operation and check that everything is operating correctly and that the shoes clearance is correct before using the brakes.



Inner cable adjustment

Adjust the balance with spring tension

fig. 12

Note: If you are still failed to well adjust the V-brakes, we strongly recommend is being done by professionals. If the distance between the left/right shoes and the rims is more than 2mm after abrasion for a long time, you need to replace the left and right shoes to ensure the safely.

Basic Disc Brake Adjustment:
The notes that follows are not exhaustive. If you need further assistance, please take your cycle to your local dealer or a professional cycle shop.

A. Brake lever and and Brake Pad Travel Adjustment

You can alter the amount of braking pressure by altering the travel of the brake lever and by the proximity of the brake pads to the brake disc. To alter the travel of the brake lever, adjust screw A (see fig. 13), unscrew screw A reduce the amount of lever travel and by tightening it increase the lever travel. If you have fully unscrewed screw A and the lever travel is still excessive you will have to adjust the space between the pads and the disc.

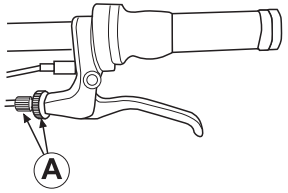


fig. 13 Brake Lever Adjustment

Tighten screw A (Fig.13) up to the brake lever. Go to Fig.14and insert an allen key into the smaller hole inside allen key hole B. Rotating the allen key clockwise pushes the outer brake pad forward by approx.0.8mm After each turn, check the braking performance.

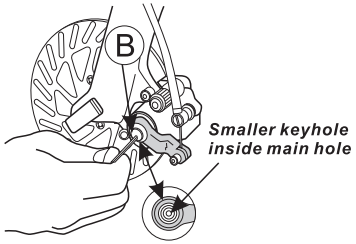


Fig.14 Disc brake pad adjustment

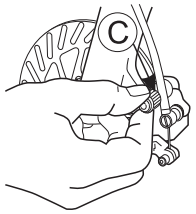


Fig 15 Disc brake pads adjustment

Once the correct amount of travel has been reached, centre the brake Caliper on the disc by adjusting screw C (Fig.15). when the brake pads are centred on the disc the wheel should spin freely, though there may be a slight amount of noise until the pads "bed" in.

If your cycle came from, or has recently been overhauled by a professional repair shop. you should be able to maintain good braking performance by adjuster screw C (refer to Fig.15)

B. Brake lever and Brake Pad Travel Adjustment

When you check your brake pads due to falling performance, check their thickness. If they are less than 1 mm (Fig. 20), they will need replacing.

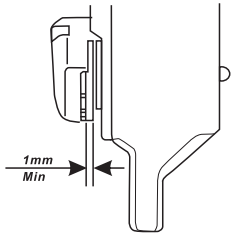


Fig 16

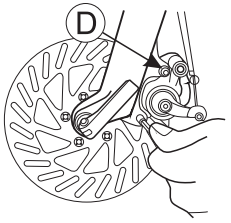


Fig 17

To fit new pads, remove the brake caliper from the fork or frame by unscrewing allen bolts D (Fig.21). Unscrew (anticlockwise), the smaller allen bolt inside allen bolt B (Fig.14). Lift up and pull the inner pad downward, using the protruding part. Slide a thin slot screwdriver under the outer pad and lift it up. Hold the screwdriver in this position and remove the pad with a pair of long nosed pliers.

Remove the springs from the worn out pads and fit them onto the new pads. Replace the new pads, keeping them slightly inclined into the seat of the Caliper.

Check that the spring hooks correctly onto the small piston. (When pulling downwards the pads should not come out). Refit the Caliper to the fork or frame and adjuster screw C (Fig.15) until the pads and the disc are centred and the wheel spins freely. Again, there may be some noise from the brake until it "bed" in.

Step 6: Derailleur gears maintenance and adjustment
To help ensure that your derailleur gear work efficiently and to prolong its life, it must be kept clean and free from excessive dirt built up and should be properly lubricated.

Before adjustment: please make sure of the following details:

- The left shifter controls the front derailleur and chain wheel, and that the right shifter controls the rear derailleur and sprocket.
- The largest rear sprocket generates low gear for hill climbing; the small rear gear sprocket develops high gear ratios for speed work and downhill riding
- The small chainring produce low gear ratios while the larger front chainring produce high gear ratios
- To operate your derailleur gear system efficiently and reduce damage, wear and reduce noise to a minimum, avoid using the maximum crossover gear ratios of large chainring /large rear sprocket, small chainring /small rear sprocket.

Note: for positive gear selection, observe these four precautions:

1) change only when pedals and wheels are moving in a forward motion
2) reduce pedal pressure while changing gears
3) Never back pedal when changing gears
4) Never force the gear levers

REAR DERAILLEUR ADJUSTMENT:

Move the shifter all the way forward (toward seat) and with the chain on the smallest rear sprocket and largest front sprocket, check for cable slack at point "B" (refer to fig.18). If there is slack, loosen the cable nut or screw, pull on the cable end with pliers and retighten the cable nut or screw while pulling cable taut (tightening torque: 5-7N.m or 4-5 lbs)

Top Adjustment
Turn the "H" adjusting screw (or top rear adjustment screw) on the gear mechanism so that, looking from the rear, the guide pulley is below the outline of the top gear.

Low adjustment
Turn the "L" adjusting screw (or low gear adjustment screw) so that the guide

pulley moves to a position directly below the low gear
1) Operate the grip shift lever to shift the chain from top gear to 2nd gear.
*If the chain will not move to the 2nd gear, turn the cable adjusting barrel to increase the tension1 (anticlockwise)
* If the chain moves past the 2nd gear, decrease the tension 2 (clockwise)
2) Next, with the chain on the 2nd gear, increase the inner cable tension while turning the crank forward. Stop turning the cable adjusting barrel just before the chain make noise against the 3rd gear. This complete the adjustment

Be sure to perform oil maintenance at each part of the transfer mechanism. The optimum oil is dry molybdenum oil or the equivalent

FRONT DERAILLEUR ADJUSTMENT

1) Using the shifter on the left hand side of the handlebar, align the outer plate of the front derailleur with the teeth of the large chainring.
2) Check that the tips of the teeth of the large chainring are 1/16" to 1/8"(1-3mm) from the bottom of the outer plate of the front derailleur and when looking down on the derailleur it is parallel to the chainring.
3) If the front derailleur is not properly aligned, loosen the derailleur clamp screw and move the front derailleur on the seat tube until you obtain the correct position. Tighten the derailleur clamp screw.
4) Move the shifter on the left hand side all the way forward (toward the seat) and check for cable slack at point "A" (see illustration). If there is slack, loosen the cable nut with a wrench, pull on the cable end with pliers and retighten the cable nut while pulling cable taut (tightening torque: 5-7N.m or 4-5 lbs).
5) Shift the chain to the largest rear sprocket. With the chain on the smallest front chainring, adjust the "L" adjusting screw (or inner adjustment screw) to make the clearance between the chain and the inner plate of the front derailleur as close as possible without touching.
   Shift chain to the smallest rear sprocket. With the chain on the largest front chainring,
6) adjust the "H" adjusting screw (or outer adjusting screw) to make the clearance between the chain and the outer plate of the front derailleur as close as possible without touching

Step 7: Tighten the front and rear hubs nuts securely. (Tighten torque: about 30N.m for front wheel, about 25 ot 30 N.m for rear wheel) Before bicycle equipment riding, lift the front of the bicycle so that the front wheel is off the ground and give the top of the tire a few sharp downward strikes. The wheel should not wobble or come off.

Step 8: Inner gear adjustment, please refer to the attachment copy inside bike carton.

SECTION II

MANUAL FOR ELECTRIC PART

The model instructed in this manual is made with "start aid". This electric assistance system will help riders to save their energy, while they enjoy their easy sports.

Here is the function of so-called "start aid": when you press this bottom indicated "start aid", the bike can be started at speed of 6km/h. After the bike moving forward, you can easily pedal on and release the "start aid" button.

Also, you can pedal 3/4 round of the chain wheel to start motor without using the "start aid "button.

Content

1. Important Safety Cautions:

- We strongly advise wearing an approved helmet, which meetslocal standards.
- Obey local road rules when riding on public roads.
- Be aware of traffic conditions
- The rider must be over 14 years old.
- Have your bike serviced only by authorized bicycle shops.
- Regular servicing will ensure a better and safe riding performance.
- Do not exceed more than 100kg load on bicycle, including rider himself.
- Never have more than one rider on the bicycle.
- Ensure regular maintenance is carried out on the bike according to this
- owner's manual

- Do not open or attempt maintenance on any electrical components yourself. Contact your local bicycle specialist for qualified service and maintenance when needed.
- Never jump, race, perform stunts or abuse your bicycle.
- Never ride under the influence of intoxicating drugs or alcohol.
- We strongly recommend using lights, when riding in the dark, fog or poor visibility.
- When cleaning this bike, please wipe the surface with a piece of soft cloth. For very dirty areas you can wipe it with a little neutral soap and water.

⚠ **Warning**: do not wash this electric bike direct with spraying water especially pressure washers. Avoid water entering electric components as this may result in damage of the electric components.

2. Operation

Your new electric assistance bicycle is a revolutionary transport means, applying aluminum frame, Li-ion battery, a super high efficiency electric hub motor and controller with electric pedal assistance system, to support normal pedaling. The above-mentioned equipment will ensure safe riding with excellent function and performance. It is important for you to note the following guidelines to ensure getting the best possible experience from your electric bicycle.

2.1 Checking before Riding

2.1.1 Please ensure tyres are fully inflated as indicated on the tyre wall, before riding.
Remember, performance of the bike is directly related to the weight of the rider and baggage/load, together with the stored energy in the battery;

2.1.2 Charge overnight, prior to riding the next day;
2.1.3 Apply chain oil periodically and clean if dirty or gummed up, using a degreaser, then wipe clean and oil bicycle chain again.

3. Battery Installation & Usage.

The electric bikes have the battery positioned within the down tube (the battery pack is directly connected to the controller box.)
The slider of battery is fixed on down tube by bottom screws .
Then the battery case is locked by the key see the operation details below.

Firstly, please put the battery case along this slider horizontally , then push it into and ensure a snug fit. Second, make sure the battery pack is firmly pushed into the controller housing and its connector is securely inserted inside the controller box.

Notice the battery lock

From the initial position 12 o'clock (where the battery and carrier are unlocked), insert the key into the key slot, press and turn it clockwise to position 6 o'clock (Then the battery is locked with the carrier). On the contrary, you can unlock it.

Battery charge

If an AC outlet is available within reach of your bike, you can charge your bike directly with the battery still attached to the bike. The charging port is covered by a plastic cap, with a yellow arrow for notice . Please open it then you charge the battery directly .
Removing the battery is useful for charging in a location where the bicycle may

*** Remember to take off and care about the key after you withdraw the battery from the down tube !!!**

4. Using and Maintaining the Battery.:

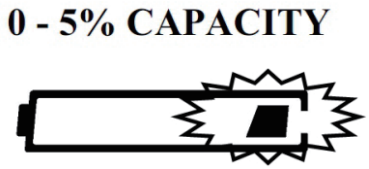
Advantages of Li-ion battery. this electric assistance bicycles are supplied with high quality Li-ion batteries, which are light and create no pollution to the environment, as a typical green energy source. As well as the above features, the Li-ion batteries have the following advantages:

- Charging without memory effect
- Big electric energy capacity, small volume, light in weight, with large current output, suitable for high power vehicles.
- Long life
- A wide working range of temperature: -10°C to +40°C

To ensure a longer battery life and protecting it from damage, please use and maintain it according to the guideline below:

4.1 During your riding, when you find the power decreased to 5% on the LCD. (See the Fig 6.1) , the battery must be charged in short time!

4.2 Remember to charge the battery full before you will ride for (Fig6.2)a long trip!



(Fig6.1)

（Fig6.2）

4.3 If the bike is ridden less frequently or stored for quite a long time, it must be fully charged every 2-3 months.

⚠ **Warning:**

1) The battery life may be reduced after long storage without regular charging as instructed above, due to natural discharge;
2) Never use any metals directly to connect the two poles of the battery, otherwise, the battery will be damaged due to short circuit.
3) Never put the battery near to fire or heat source.
4) Never strongly shake, punch and toss the battery.
5) When the battery pack is removed from the bike, keep it out of reach of children, to avoid any unexpected accident.
6) The battery is forbidden to be disassembled.

5. Using and Maintaining the Battery Charger.

Before charging the battery, please read the owner's manual and the charger manual accompanied with your bike, if any. Also, please note the following points regarding battery charger.

* Do not use this charger in an environment of explosive gas and corrosive substances.
* Never shake, punch or toss the battery charger, to protect it from damage.
* Always protect the battery charger from rain and moisture!
* This battery charger should be normally used under temperature, ranged between 0°C to +40°C
* The charger is for bidden to be disassembled.
* You should only use the charger provided with the electric bike, otherwise damage could occur to your battery and void the guarantee.
* When charging, both battery and charger should be minimum 10cm away from the wall, or under a condition of ventilation for cooling. Place nothing around the charger, while in use!

Procedure for Charging. Please charge the bike battery according to the following procedure:

5.1 The battery can be charged by the AC, the switch is not necessary to be turned on.
5.2 Insert the charger output plug into the battery securely and then, plug the main cable of the charger into a reachable AC outlet;
5.3 When charging, the LED on the charger will become red, showing the charging is on. When it becomes green, you can finish charging the battery.
5.4 To finish charging, you must disconnect the charger input plug first from the AC outlet, and after that, disconnect the charger output plug from the battery pack. Finally, close the cover on the charging socket of the battery pack and check the socket, is covered

6. Using and Maintaining the Electric Hub Motor.

6.1 Our intelligent e-bikes are programmed to start with the electric assistance after rotation of the chain wheel.
6.2 Do not use the bike in flood waters or thunderstorm. Do not immerse the electric parts in water. Otherwise, the electric components may be damaged.
6.3 Avoid any impact towards the hub motor, otherwise, the casting alloy aluminum cover and body may break.
6.4 Make regular checks on the screws on both sides of the hub motor; fasten them even if they are just a little bit loose.
6.5 It is necessary to check the cable connection to the motor.

7. Maintaining the Controller
For our electric bikes the controller is usually equipped inside the battery pack holder.
It is very important to take care of this electronic component, according to the following guideline:

7.1 Pay attention to protect from ingress of water and immersion in water, which may damage the controller. Note: If you think water may have got into the control box, please switch off the power immediately and pedal without electric assistance. You can pedal with electric assistance as soon as the controller has dried out.
7.2 Pay attention to protect from any strong shaking and punching, which may damage this controller
7.3 The controller should be used in normal working temperature range from -15°C to +40°C

⚠ **Warning**: Do not open the controller box. Any attempt to open the controller box, modify or adjust the controller will void the warranty. Please ask your local dealer or authorized service specialist to repair your bike.

8. Maintaining the Power-off Control of the Brake Lever*

This is a very important component for riding with safety. First, you should pay attention to protect it from impact and avoid any damage. Second, make regular check on all bolts and nuts, and fasten them securely.

9. Simple Trouble shooting.

The information below is for purpose of explanation, not as a recommendation for user to carry out repair. Any remedy outlined must be carried out by a competent person who is aware of the safety issues and sufficiently familiar with electrical maintenance.

10.Display User Instructions
Please see the attached sheet

Trouble Description	Possible Causes	Trouble shooting
After the main battery switched on, the motor does not generate assistance when pedaling.	1)the motor cable (waterproof connection joint) is loose; 2) brake lever did not return well, which keeps the switch in "power off" position; 3) battery fuse is broken; 4) the speed sensor is too far away from the magnetic ring on the B.B. axle; 5) the connection between the sensor and the controller is loosen or not connected well.	First of all, please check the battery if it is empty. If yes, charge the battery immediately. 1) check if the connection is securely fixed. If loose, joint them tightly. 2) make the brake lever come back to its normal position with care, without braking; 3) open the battery pack top, and check if the fuse is broken. If yes, please visit your vendor or authorized service for installing a new fuse; 4) adjusting the distance between the magnetic ring and the sensor, to make sure the distance is within 3mm; 5) fix tight the connection between the sensor and the controller.
The distance per charge becomes short (Note: performance of the bike battery is directly related to weight of the rider and any baggage/load / wind / road / constant braking).	1) charging time is not enough; 2) the environment temperature is so low that it affects the battery working. 3) frequently going uphill, or riding with head wind, or on poor road condition, 4) the tyres have low pressure (to be inflated); 5) frequently braking and starting. 6) battery has been stored without using for quite a long time.	1) please charge the battery according the instruction (chapter 7.3); 2) in winter or under 0°C, you'd better store the battery inside the house; 3) it will be normal if the riding conditions are improved as regular; 4) pump the tyres and ensure tyres are fully inflated to 45psi for your bike; 5) it becomes normal when the riding situation will be better. No worry about such a trouble; 6) make regular charging according to this instruction manual (refer to Chapter 6.3) If the above has no effect, please contact your vendor or authorized service.
After plugging the power outlet, no charger indicator LED is lit.	1) trouble from the power outlet; 2) poor contact between charger input plug and power outlet; 3) the temperature is too low.	1) check and repair the power outlet. 2) check and insert the power outlet tightly. 3) charge it in house. If the above has no effect, please contact your vendor or authorized service
After charging over 4-5 hours, the charger indicator LED is still red, while the battery is still above not full (Note: it is very important to charge your bike strictly according to this instruction stated in Chapter 7, to avoid any trouble and damage occurred to your bike.	1) environment temperature is 40°C and above. 2) environment temperature is under 0°C. 3) failed to charge bike after riding, resulting in over discharge. 4) the output voltage is too low to charge the battery.	1) charge the battery in an area under 40°C, or according to this instruction chapter 7; 2). charge the battery inside the house, or according to this instruction chapter 7; 3) please well maintain the battery according to the Chapter 6.3 to avoid natural over-discharge; 4) no charging when the power supply is lower than 100V. If the above has no effect, please contact your vendor or authorized service.
There is no speed/KM show on the LCD	The magnetic ball point on the wheel spoke is in too far away distance from the wheel speed sensor (fixed to frame chain stay or front fork), which make the sensor cannot get any signals of the revolving wheel.	Check the distance between the magnetic ball point and the wheel speed sensor, and make sure the distance should within 5mm.

10. Main Technical Specification Sheet

Please find model name of your bike below:

Model	Remark (for reference)
FW-R10	

Here is some of the general technical Data for this electric bikes:

Maximum Speed with Electric Assistance:	32km/h
Over Current Protection Value:	12±1A
Under Voltage Protection Value:	30V ± 0.5V

Please find the crossed technical data regarding the bike motor below:

Motor Type:	75RX
Rated Power:	250W
Rated voltage:	36V

Please find the crossed technical data battery and charger below:

Battery Type:	QINGTING2
Voltage:	36V
Capacity:	5.2AH

User's Manual Electric Bicycle

NOTE: