

# USER MANUAL

Electric Bike B09A-750



# 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 Users 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:**

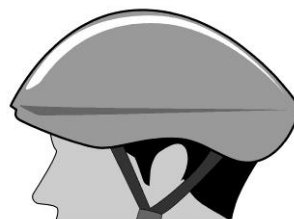
**be comfortable to the rider**

**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 e-bike.

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 e-bike.

**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 runs at the speed of 20km /h, the wet brake distance should be not longer than 15m. Please adjust the brake frequently, and change the brake pad in time.
4. Check the tightness of the chain. The tightness should be about 15mm. When adjust the chain, loose the rear axle nuts, adjust the chain tightness screw making sure the chain tightness is proper, then tighten the rear axle screw.
5. For the safety of you and other people, cut the power supply when it is not used.
6. Check the air tension frequently.If the air is too less, the resistance will increase, affecting the running range.
7. 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)
8. 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.

9. Please cut off the power if there is problem on the electrical parts.
10. Please pay attention to national legal requirements when the bicycle is to be ridden on public roads (e.g. lighting and reflectors)
11. The fasten torque of the fixing screw for the rear rack should be 16N.m.

## Getting Started

First, unpack your electric bike carefully and save all packing material. Be sure to locate your charger, pedals, keys 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.

## 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 90% assembled. To ship the bike, the pedals, seat, front wheel and sometimes the handlebar are loosened or removed.

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

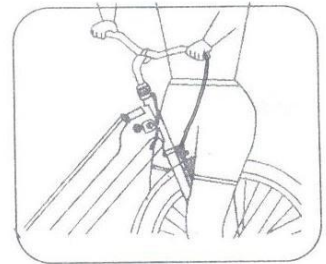
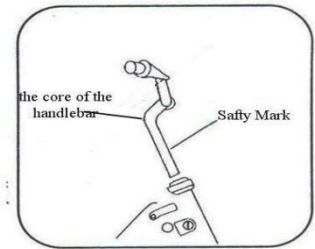
Your handlebars have two main parts--the bar itself and the stem. On some models, the stem can be adjusted to tip the handlebar forward or back. If your bar has been removed for shipping, position the bar in the center of the stem and check, to be sure that your grips are in the right place and the angle of the bar is comfortable. Tighten the screws to hold the bar in place, ensuring all brake cables is clear, the suggested torque is 13-14N.m

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 angle by loosening the Allen key screw located underneath the stem. Tighten the stem, adjustment screw securely after positioning the stem angle. The tightening torque between the handlebar and the frame stem should be bigger than 18-20N.m

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.



## The adjustment of the wheel:

After loose the wheel, please adjust it according to the recommend torque. The fasten torque should be no less than 30Nm for the rear wheel. The fasten torque of the front wheel should be no less than 25 N.m

# Check and adjust the DISC BRAKES

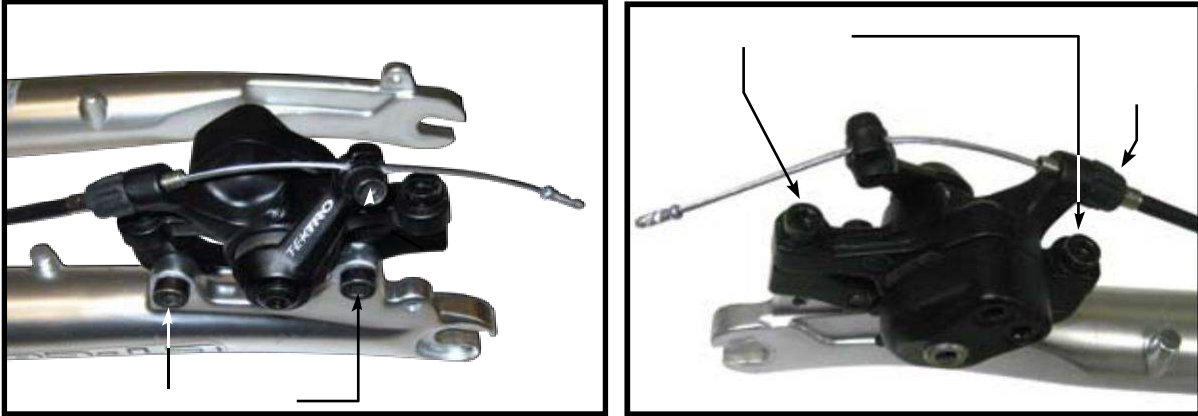
Left for rear brake, right for front brake.



1. Check the tightness of the six disc mounting bolts holding the brake rotor onto the wheel. If you need to remove these bolts, be sure to us a thread-locking compound when re-installing them.
2. Make sure the two bolts securing the caliper adaptor bracket to the fork are tight.

3. Thread the brake cable through the caliper as shown and secure it with the cable fixing bolt.

4. Loosen the two caliper mounting bolts enough to allow the brake caliper to float freely.



## Adjust the Saddle

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

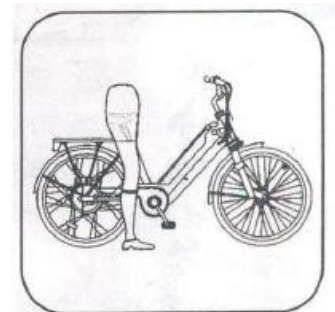
Your seat height is adjusted by a quick release. Pull the quick release lever, Insert your seat post to at least the minimum insertion line marked on the post. Tighten the adjusting nut by quick release lever, then push the quick release lever to the closed position, the suggested torque is no less than 19.5N.m.

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.

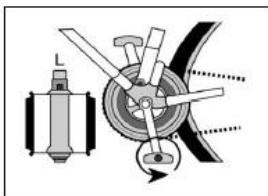
## Adjustment of the seat post

The adjustment method is as follows :

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.



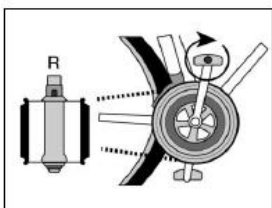
## Attach the Pedals



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.

# Operation of Your Electric Bike

*Your e-bike is driven by a motor embedded in the hub of the rear wheel and can not 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.*

*You should use the SHIMANO gear shifter at the handlebar to set the gears appropriately according to road conditions and pedal as usual, you will find that you need to exert a lot less effort and the e-bike travels faster and at a more steady speed.*

*Note that the Battery level indicators on the handle bar will show the correct level only when power is not being drawn from the battery.*

# 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.

Your lithium battery pack switch has three positions. All the way to the left is "off". Turn the key to the right to turn the bike on.

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

## Operation of Display

This LCD display can show the speed, battery power, ODO and 1-5 levels PAS ASSIST

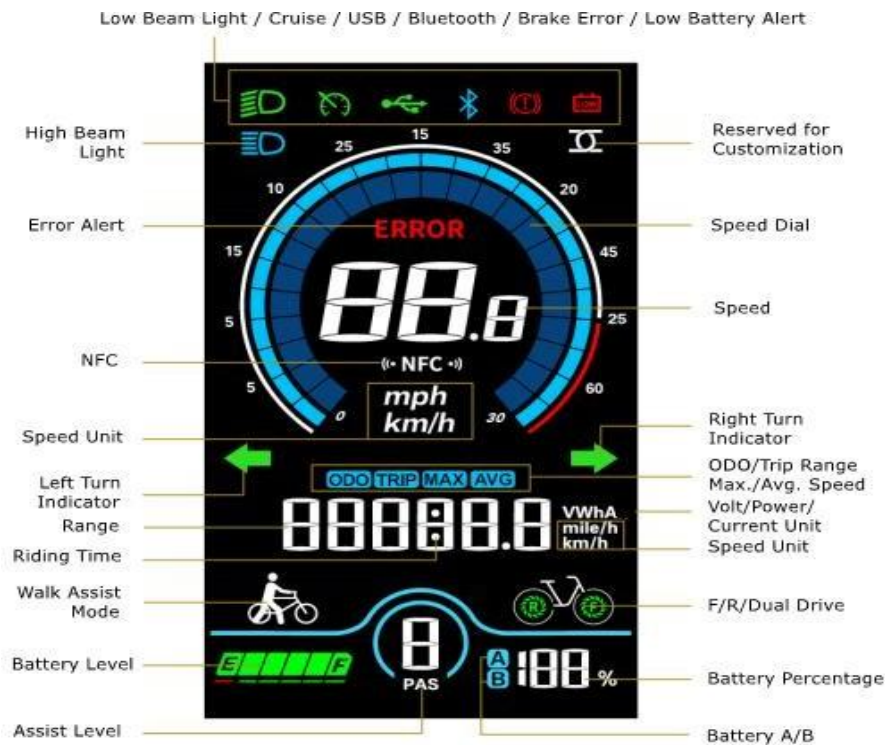
The bike speed around 6km/h to 32km/h in the 5levels.Press  to switch on the power of LCD, press "+" PAS grade +1. Press "-" PAS grade-1 .



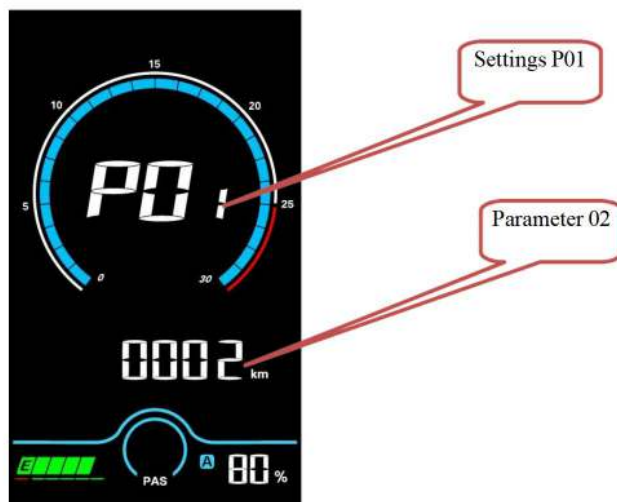
# 1. Display Interface

## 1.1 Riding Interface

- Status : Real-time Riding Status : Bluetooth, Front Light, Brake, Low Voltage, Turning, Cruise, Drive Status, etc.
- Battery Status : Residual Battery Percentage
- Multi-Function Section : ODO (total range), TRIP (single ride range), MAX (max. speed), AVG (average speed), TIME (riding time), VOL (battery voltage), Wh (motor power), CUR (current), etc.
- Assist Level Mode : 3/5/9 Levels available.

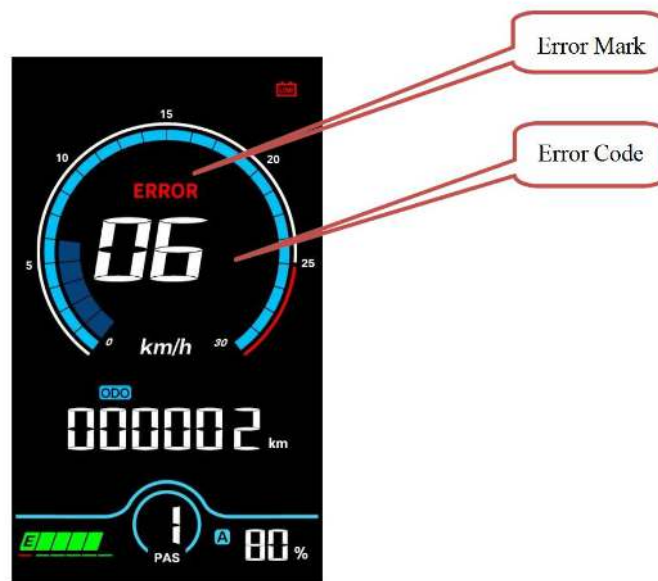


## 1.2 Setting Interface



Setting Item : P01, Parameter Value : 02

### 1.3 Error Interface



Error Indicator: ERROR, Error Code: 06

## 2. Key Pad



There are 5 keys on the SWK2 keypad, in the following instructions:

**+** Plus Key; **⏻** On/Off Key; **-** Minus/Walk Assist Key; **💡** is called Light Key; **i** Info Key;

## 3. Key Operation

Key operation guide as follows:

**Press and Hold:** means press and hold the key(s) for more than 2s.

**Press:** means press the key(s) for less than 0.5s.

**Double Tap:** means double tap the key(s) within 0.3s

### 3.1 On/Off

**Turn on the Display:** When the display is off, press and hold the On/Off Key to turn on the display, it will show boot interface and then enter riding interface. (If boot password is activated, enter the boot password at start).

**Turn off the Display:** When the display is on, press and hold the On/Off Key, the display will be turned off. If no operation is engaged for 10min(0km/h), the display will be auto-off. Auto-off time can be set in

. the Settings.

### 3.2 Assist Level

Press the Plus Key or Minus/Walk Assist Key to switch assist levels. There are 5 levels by default: 0/1/2/3/4/5. 0 means no assist power.

### 3.3 Toggle Displays

When the display is on, press the Info Key to toggle among ODO (total range), Trip (single trip range), TIME (riding time) etc.

### 3.4 Light On/Off

**Turn on the Front Light:** when the front light is off, press the Light Key to turn it on, and the light icon will be shown on the riding interface (to remove this functions, please reconfigure the controller).

**Turn off the Front Light:** when the front light is on, press the Light Key to turn it off, and the light icon will be off on the riding interface.

### 3.5 Walk Assist Mode

**Engage Walk Assist Mode:** On the riding interface, press and hold the Minus/Walk Assist Key to enter walk assist mode. Hold the Minus/Walk Assist Key to engage walk assist mode, the walk mode icon will be shown on the riding interface, the real-time speed will be shown in the speed section.

**Disengage Walk Assist Mode:** release the Minus/Walk Assist Key to disengage the walk assist mode, the icon will off on the riding interface.

## 4. Settings

### 4.1 Setting Operations

① **Enter the Settings:** when the display is on, press and hold the Plus Key and the Minus/Walk Assist Key together to enter the Settings. Available setting items include: system voltage, wheel size (inch), magnetic steel number for speed gauge, speed limit etc (please refer to 4.2 Setting Items).

② **Adjust Settings:** on the Settings interface, press the Plus Key or the Minus/Walk Assist Key to set values for items. The value will blink after change. Press the On/Off Key to save the set value and switch to next item.

③ **Save and Exit Settings:** press and hold again the Plus Key and the Minus/Walk Assist Key together to exit the Settings and save the set value. The system will save and exit automatically if there's no operation for 10s.

### 4.2 Setting Items

- **P00: Factory Reset:** optional.
- **P01: Backlight Brightness.** 1: darkest; 3: brightest.
- **P02: System Unit.** 0: km (metric); 1: mile (imperial).
- **P03: System Voltage:** 24V/36V/48V/60V/72V.
- **P04: Auto-Off Time**

0: never, other value means auto-off time interval. Unit: minute

■ **P05: Pedal Assist Level**

- 0-3 Level Mode; 1-3 Level Mode (no Level0)
- 0-5 Level Mode; 1-5 Level Mode (no Level0)
- 0-9 Level Mode; 1-9 Level Mode (no Level0)

■ **P06: Wheel Size.** Unit: inch; Increment: 0,1

■ **P07: Motor Magnets Number for Speed Gauge.** Range: 1-100

■ **P08: Speed Limit.** Range: 0-100km/, communications status (controller-controlled). The max speed will be kept constant at the set value.

Error Value:  $\pm 1$ km/h (applicable to both the PAS/throttle mode)

**Note:** The above-mentioned values are measured by metric unit (km/h). When the system unit is set to imperial unit (mph), the speed displayed will be automatically switched to corresponding value in imperial unit, however the speed limit value in the imperial unit interface won't change accordingly.

■ **P09: Direct Start / Kick-to-Start**

- 0: Direct Start (Throttle-on-demand);
- 1: Kick-to-Start

■ **P10: Drive Mode Setting**

- 0: Pedal Assist – The pedal assist level decides the motor power output. In this status the throttle does not work.
- 1: Electric Drive – The e-bike is only controlled by the throttle. In this status the pedal assist does not work.
- 2: Pedal Assist + Electric Drive (electric drive does not work in direct-start status)

■ **P11: Pedal Assist Sensitivity.** Range: 1-24.

■ **P12: Pedal Assist Starting Intensity.** Range: 0-5.

■ **P13: Magnets Number in Pedal Assist Sensor.** 3 Types: 5/8/12pcs.

■ **P14: Current Limit Value.** By default: 12A. Range: 1-20A.

■ **P15: Display Low Voltage Value.**

■ **P16: ODO Clearance.** Press and hold the Plus key for 5s and ODO value will be cleared.

■ **P17: Cruise.** 0: cruise function deactivated, 1: cruise function activated.

■ **P18: Throttle Level Control.** 0: throttle speed isn't divided into different levels, 1: throttle speed is leveled as pedal assist levels.

■ **P19: Auto-Light.** 0: auto-light deactivated, 1: auto-light activated.

- **P20: Sensitivity of Light Sensor.** Range: 20-100
- **P21: Boot Password.** 4-Digit.
- **P22: Password for Advanced Settings.** 4-Digit.

## 5. Error Code

Error code	definition	Troubleshooting
21	Current error	1) Check if controller broken
		2) Check if Motor broken
		3) Check if connectors connect not well
22	Throttle error(Start detection)	1) Check if throttle broken
		2) Check if throttle connector connect not well
		3) Change a throttle
23	Motor no phase position	1) Check if controller broken
		2) Check if Motor connector connect not well
		3) Check if Motor broken
24	Motor Hall error	1) Check if Motor connectors connect not well
		2) Check if controller broken
		3) Check if motor's hall element broken
25	Brake error(Start detection)	1) Check if brake levers connectors connect well
		2) Check if brake levers broken
		3) Change brake levers one by one
30	Communication receiving error	1) Check if controller broken
		2) Check if connectors connect not well
		3) Change a display

## Derailleur

The gears or derailleur should only be shifted as you pedal to keep the derailleur in adjustment. The derailleur/shifting and pedaling are completely independent of the motor.



## Best Practices

Please observe the traffic regulations. *Keep both your hands on the handlebars ready to brake while riding.* Always charge your battery after riding. Don't run your battery dead or extremely low. If you do, charge as soon as you can. Remember to turn off the key when you stop. Always remove the key when you are through riding. If left on, the battery will slowly drain.

**Warning:**

1. The rated loading capacity for the rear rack is 25kg. It does not fit for Children Seat.
2. The total loading capacity should be not over than 75kg.
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. And the installation of the rear rack can not shield the reflector or light.
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.

## The match of the electric bicycle and people

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.

l off 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.

# 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 7) Broken wire 8) Throttle disengaged or faulty	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 7) Inspect all wires 8) Engage throttle or replace
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 battery fully 3) Replace battery 4) Inflate tires fully 5) Adjust brakes and/or rim
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 well 3) Charger light or charger is faulty	1) Try another outlet 2) Check all plugs 3) Replace charger
6	Finish charging in short 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.

### 2. Wheels and Tires

- Ensure tires are inflated to within the recommended limit as displayed on the tire sidewall.

**SAFETY WARNING!** Danger of wheel failure due to rim wear. Replace wheel immediately when any part of above groove wears off.

- Ensure tires have tread 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 that axle nuts are tight. If your bicycle is fitted with quick release axles, make sure locking levers are correctly tension and in the closed position.

### 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

### 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 rattling.
- Check headset, wheel bearing, pedal bearings and bottom bracket bearings.

### 8. Cranks and pedals

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

### 9. Derailleurs

- Check that front rear mechanisms are adjusted and function properly.
- Ensure control levers are securely attached
- Ensure derailleurs, shift levers and control cables are properly lubricated

### 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