Electric Bicycle

User's manual

Original Instruction

Catalog

7. Troubleshooting

Electrically power assisted bicycle，equipped with pedals and an auxiliary electric motor， which cannot be propelled exclusively by means of this auxiliary electric motor。

Compared with bicycle, Electric bicycle only add motor, controller, charger, battery. When Riding, electric energy will help you to drive easier and save labor。

Items in carton：

When you open the carton, pleases check if the following items are inside. If not, please contact with your agent.

*	electric bicycle	1pc
*	battery	1set
*	charger	1pc
*	pedal	1pair
*	manual	1pc
	cover for front axle	2pcs
	fuse	4pcs
	tools bag	1pc
*:must be in the package		

1. Safety instructions and notes

1.1 Safety instructions

★ Do not operate this electric bike without carefully reading the Manual and understanding the performance of the electric bike, and do not lend it to the persons who can manipulate the electric bike.

★ Preparations before riding: wear your helmet, gloves and other protective gears before riding to protect yourself from damage in case of an accident.

★ We highly recommend that you observe traffic rules and regulations when using this electric bike. Passengers can not be carried. When riding in rainy, snowy or slippery conditions reduce your speed and increase the distance between yourself and other vehicles.

★ Cycling conditions: ambient temperature of -10 to 40C, no wind and flat roads; without frequent startup and brake, the general running distance may be 40 to 80km (according to the battery capacity).

★ Maximum load: the maximum load of the bike is (95Kg) coupled with the maximum load (25Kg) of the rear rack; if an accident happens when the load is more than 120Kg, the company does not undertake any responsibility.

★ In case of frequent brake, startup, uphill, headwind running, muddy roads, overload and others, a large quantity of electric power of the storage battery will be consumed, thus affecting the continued mileage, so we recommend that you avoid the above factors when riding.

★ If the storage battery is disabled for a long time, make sure to charge it enough, and it need be additionally charged once if its storage is more than a month.

★ Make sure to pay attention: the electric bike can not wade for a long time because if water enters into the controller and motor wheel, it may cause short circuit to damage the electrical appliances!

★ Prohibit unauthorized demolition or alteration, and the company is not responsible for all losses resulting.

★ The scrapped battery can not be discarded randomly, so as to avoid environmental pollution.

1.2 Notes

The electric bike is designed based on the original bike in combination with the market demand and is a means of transport with special functions and uses. At the time of purchase, please select and buy a model suitable for your need, and the drivers must have skilled driving technique before driving on the roads. In order to your correct use and security, please pay attention to the following matters:

◆ In the process of use, pay attention to checking the fastening status of the motor and rear fork, and if a loose phenomenon is found, it should be tightened timely.

◆ When starting the power supply or meeting a steep slope, use the Pedal to assist as far as possible to reduce the starting current and extend the battery life and continuation line mileage.

◆ In rainy days, please pay special attention to: when the water depth is more than the wheel center, it is likely for the motor to soak water, thus resulting in failure.

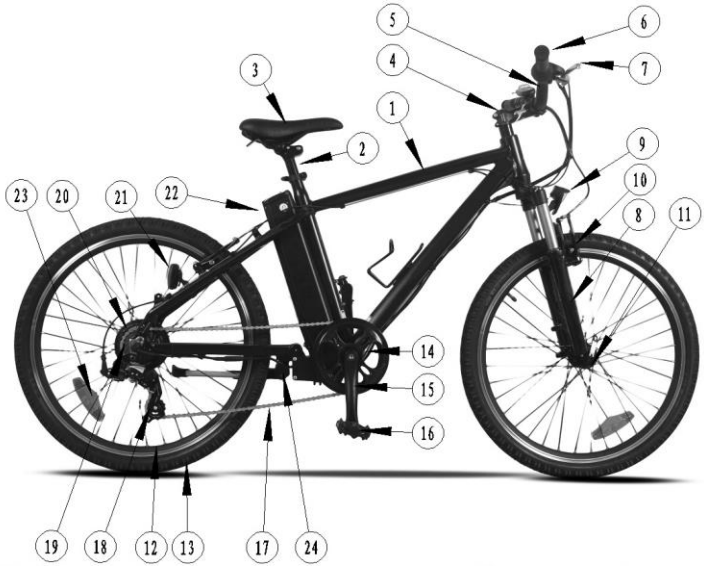
◆ Users must use the charger specified by manufacturer for charging the storage battery. When charging, put the battery and charger smoothly.

◆ It is prohibited that other items are covered on the battery box and charger to impede heat, where good ventilation environment should be maintained.

- Please keep appropriate air pressure inside the tires, so as to avoid increasing the resistance when driving, and easily wearing the tires and deforming the Rim.
- Drivers should abide by traffic rules, and the riding speed should be controlled below 25km/h and the goods to be carried shall not exceed 25Kg.
- When high-speed running or downhill hard braking, do not use the front brake to avoid the center of gravity from moving ahead, thus resulting in danger.
- Don’t to modify the luggage carrier.
- Don’t pull a trailer on the luggage carrier.
- The bicycle may behave differently (particularly with regard to steering and braking) when the luggage carrier is loaded;
- Ensure that any luggage or child-seat fitted to the luggage carrier is securely fitted in accordance with the manufacturer’s instructions and that there are no loose straps that can get caught in any of the wheels;
- When luggage is attached to the luggage carrier, don’t obscured the reflectors and lamps； distribute luggage evenly between the two sides of the luggage carrier.

2. Basic structure and name

2.1.Mountain Ebike

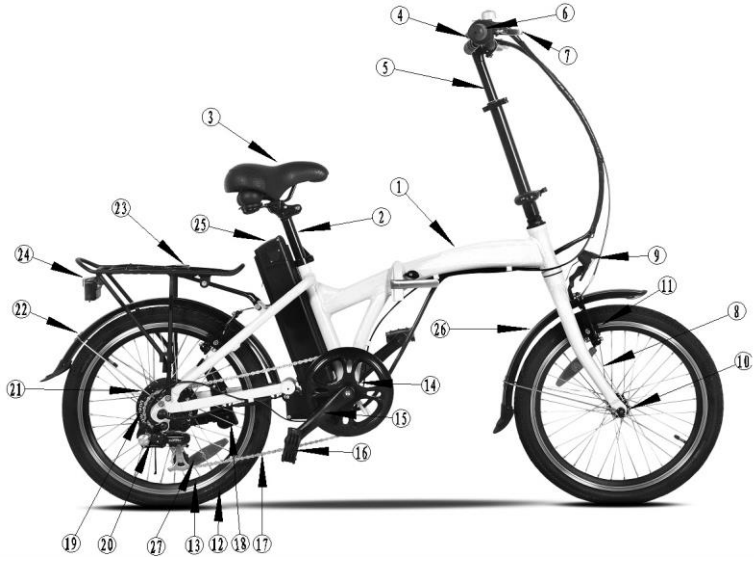


1	Frame	2	Seat post	3	Saddle
4	Vertical handle stems	5	Across handle Stems	6	Derailleur
7	Brake handle	8	Front fork	9	Headlight
10	Disc brake or V brake	11	Hub	12	Rim
13	Tyre	14	Speed sensor	15	Crank
16	Pedal	17	Chain	18	Rear derailleur
19	Flywheel	20	Motor	21	Taillight
22	Storage battery	23	Reflector	24	Main Stand

2.2. City Ebike

1	Frame	2	Seat post	3	Saddle
4	Vertical handle stems	5	Across handle Stems	6	Derailleur
7	Brake handle	8	Front fork	9	Headlight
10	V brake or Disc Brake	11	Hub	12	Rim
13	Tyre	14	Speed sensor	15	Crank
16	Pedal	17	Chain cover	18	Chain
19	Rear derailleur	20	Flywheel	21	Motor
22	Front fender	23	Rear fender	24	Rear rack
25	Storage battery	26	Reflector	27	Main stand

2.3. Folding Ebike



1	Frame	2	Seat post	3	Saddle
4	Vertical handle stems	5	Across handle Stems	6	Derailleur
7	Brake handle	8	Front fork	9	Headlight
10	Hub	11	V brake	12	Tyre
13	Rim	14	Speed sensor	15	Crank
16	Pedal	17	Chain	18	Kick stand
19	Flywheel	20	Back Derailleur	21	Motor
22	Rear fender	23	Rear rack	24	Taillight
25	Storage battery	26	Front fender	27	Reflector

3 Assembly method and requirements

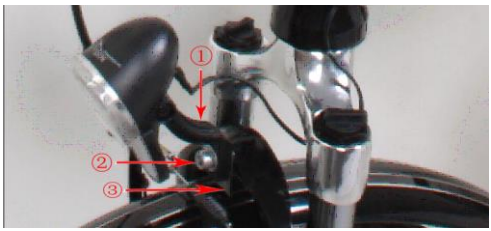
3.1. Installation of Headlight and front fender

3.1.1. Installation of Headlight

★ Close the whole power supply, avoid the positive and negative pole of the lamp wire from short-circuit, install the head light, and do not pull the head light, in order to avoid the lamp wire from shedding, causing unnecessary trouble.

1 Take out the Headlight and the front fender;

2 Align the hanger of the front fender with the hole of the Headlight bracket, fix the hexagonal M6 × 16 bolt inside the screw hole of the Front fork with 10mm opening wrench, and tighten the bolt.



①: Headlight bracket

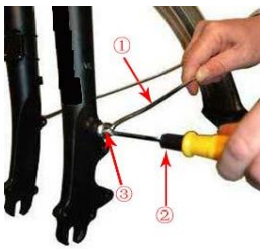
②:Front fender hanger

③:Hexangular M6×16 bolt and Ø6 flat gasket

3.1.2 Installation of Front fender

Take out the front fender, and fix the fender hanger and Headlight bracket on the Front fork with hexangular M6 × 16 bolts;

2 Fix the pan head M5 × 14 screw and the front fender stick on the corresponding positions at both sides of the Front fork with the cross screwdriver, and tighten the bolts, as shown.



① Front fender stick

② Cross and straight-line screwdriver

③ Pan head M5 × 14 bolt

Ø5 spring pad Ø5 flat gasket

★ When the lifting ear of the front fender is installed, please fender up as much as possible so as not to interfere the fender with the tire.

3.2. Installation of front wheel

3.2.1. Installation of common front wheel

1 Take out the front wheel, and loosen the nut and hook on the front wheel axis;

2 Remove the black plastic rack below the Front fork, and place the front wheel axis into the Front fork contact pin;

3 Turn the hook and nut (* front fender stick) to the front wheel axis, and tighten the nut with 15mm opening wrench by 18N.m torque and install the protective cap on the nut.

①Hook ② Front wheel axis nut M10mm

③Front fork foot contact pin ④Front fender stick

★When fastening the front wheel nut axis, press down the Front fork by force so that the front wheel axis can work closely with the Front fork.

* Note: some models of front fender sticks need to be installed on the front wheel axis.

3.2.2. Installation of quick release front wheel and V brake

1 Take out the front wheel, and rotate the quick release handle for laps counterclockwise;

2 Remove the black plastic rack below the Front fork, and take the V brake conduit out of the V brake, and put the front wheel axis into the Front fork foot contact pin;

3 Rotate the quick release handle for laps clockwise and lock the quick release handle to ensure the front wheel can not be loose;

4 Extrude the V brake by force, and put the V brake conduit into the V brake;

5 Pinch the Brake handle repeatedly, and check whether the two brake blocks have the same gap as the rim, and if the gap is uneven, re-debug the V brake (Please refer to Chapter 4.6 for the specific debugging method).

①V Gate ②Wire conduit ③Brake block

④Rim ⑤Quick release handle

★ When tightening the quick release handle of the front wheel, press the Front fork by force downward, so that the front wheel axis can work closely with the Front fork.

3.3 Installation of front brake

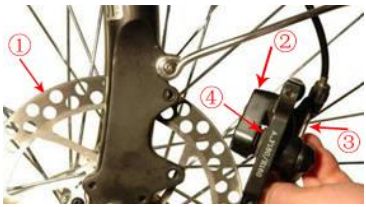
3.3.1 Installation of front Disc brake

1 Take out the Disc brake, and spin off the two bolts in front of the disk brake;

2 Take visual inspection of the distance between the two brake blocks of the Disc brake should be 3 to 4mm;

3 Put the Disc brake plate into between the two brake blocks, and fix the Disc brake on the fixed hanger of the Disc brake of the Front fork with two inner hexangular M6 × 16mm bolts by 8 to 10N.m torque;

4 After the bolts are tightened, rotate the front wheel, and listen to whether there is any abnormal sound; if there is, need adjust the Disc brake (Please refer to Chapter 4.6 for the specific debugging method).



①Disc brake plate ②Disc brake ③Inner hexangular M6×16mm bolt

④Brake block ⑤Fixed hanger of the Disc brake

Note: when fixing the Disc brake bolt, drag the lower part of the Disc brake with hand, and push the Disc brake upward as far as possible.

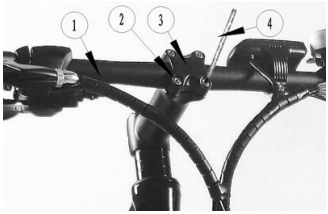
3.4 Installation of steering handle

3.4.1 Installation of mountain bike steering handle

1 Take out the Across handle Stems, remove the protective paper above the Across handle Stems, and spin off four fixed screws on the Vertical handle stems;

2 Remove the top cover of the Vertical handle stems, fix the Across handle Stems to the Vertical handle stems, and adjust the angle of the Across handle Stems;

3 Tighten the top cover of the Vertical handle stems with the bolt by 6N.m torque to ensure that the up and down gap of the top cover of the stand pipe is even.



①Across handle Stems
②Top cover of Vertical handle stems
③Top cover bolt of Vertical handle stems
④4mm hexagon spanner

3.4.2 Installation of City bike steering handle

1 Take out the steering handle assembly, and remove the protective paper above the Vertical handle stems;
2 Insert the Vertical handle stems inside the Front fork stand pipe, and adjust the direction and insertion depth;
3 Tighten the bolt inside the Vertical handle stems with 18N.m torque by hand.

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<td>Note:
the insertion depth of the stand pipe can not be too shallow, not to expose the safety line.</td>
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<tr>
<td>①Vertical handle stems</td>
<td>②Safety line</td>
<td>③6mm hexagon wrench</td>
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3.4.2 Installation of folding bike steering handle

1 Take out the steering handle assembly, and remove the protective paper above the Vertical handle stems;

2 Insert the Vertical handle stems inside the Front fork stand pipe, and adjust the direction and insertion depth;

3 Tighten the bolt inside the Vertical handle stems with 18N.m torque by hand.

4 And then close the Vertical handle stems and tighten the folding bolt.

①Vertical handle stems ③Folding bolt

②Front fork stand pipe ④8mm hexagon spanner

3.5. Assembly requirements

In order to ensure the cycling safety and using performance, the fastening requirements for the standard parts at the key places are as follows:

1 The tightening torque of the front wheel nut is not less than 18N.m

2 The tightening torque of the rear motor nut is 35 to 45N.m

3 The tightening torque of the middle axis component lock is not less than 50N.m

4 The tightening torque of the core screw rod in the Vertical handle stems is 15 to 18N.m

5 The tightening torque of the Across handle Stems and the Vertical handle stems is 15 to 18N.m

6 The tightening torque of the saddle pipe ring is 6 to 8N.m

7 The tightening torque of the saddle and the Seat post ring is 15 to 18N.m

8 The tightening torque of the Brake handle is not less than 10 to 12N.m

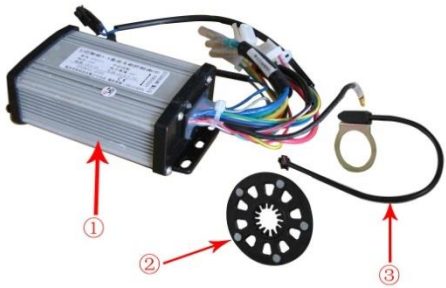
9 The tightening torque of the Derailleur is 8 to 10N.m

4. Operation and adjustment

4.1. **Introduction to speed boosting system**

The speed boosting system is also known as 1:1 boosting system. And the so-called 1:1 automatic power assisting is that when you do not rotate the speed handlebar but ride only by means of feet, the sensor with you bike will automatically sense your riding speed and control the motor to assist you automatically in a driving force with the same speed, so as to let your ride easier and make the continuation line mileage further.

1:1 boosting system comprises a controller, sensor and induced cartridge.



①Controller ②Sensor ③Induced cartridge

4.2. Charging

As it will last a certain period of time for the ex-factory, transport and storage of a just purchased new bike, it is likely to result in shortage of the battery power, the battery should be first charged before it is used.

The charger configured or designated by our company must be used for charging; otherwise it might damage the battery, and may even lead to fire and other danger, but no warranty is provided by our company.

4.2.1. Installation and charging of battery（as shown in Figure 1 and Figure 2）

Figure 1

Figure 2

4.1.2. Charging steps and method

1. Check carefully whether the rated input voltage of the charger is consistent with the voltage of the power grid.
2. The battery can be directly put on the bike for charging and can also be taken down from the bike to be charged indoors and at other

appropriate places.

3. Connect first the output plug of the charger with the charging jack of the battery properly, and then connect the input plug of the charger to the AC power supply.

4. At this time, the power indicator light and the charge indicator light of the charger are on, indicating that the charging has been connected.

5. After charging, should first pull out the AC power plug, and then pull out the plug connected with the battery.

After the battery is fully discharged, the one-time charging time is 6 to 8 hours, and after the charge indicator light is red from green, the power capacity of the battery has been basically sufficient.

A new bike had best be re-charged for (8 to 9 hours) after depth discharging since charging for the first time, and the one-week depth charging and discharging is a cycle to fully activate the active substances inside the battery. Later, it can be re-charged even if its power is not used up.

Common sense of charging and use:

* The battery should be charged in a spacious environment, staying away from high temperature, high humidity and close fire, because the battery and the charger are electronic products, high temperature and humidity will corrode electronic components, resulting in some harmful gases and soot, and even a possible explosion to wound.

* The charging time should not be too long. A long charging will lead to shortened life expectancy of the battery.

* After the battery is fully charged, the power supply should be pulled out as soon as possible, and at the same time, the battery is taken out

of the charger.

* When the battery is not used for a long term, the battery power should be emptied before the battery is preserved, and it is re-charged once every month or so.

4.3. Quick release folding system

4.3.1. Quick release system of the seat

1. Move the quick release handle to the OPEN position (OPEN sign faces to the operator).

2. Clockwise rotate the adjusting nut, only until it contacts with the seat connector, and then turn a circle or semi-circle in the opposite direction and push the quick release handle to the CLOSE position (as shown).

3. Push the side position of the seat head and the upper part by force; if the seat rotates upward at the left and right or downward from up to down, should first check whether the seat bunch is locked, and then check whether the quick release device is locked, and repeat the operations above if necessary.

4.3.2. Quick release of front wheel

Please refer to Article 3.2.2 above, the installation of quick release front wheel and V brake for the installation method of the quick release of the front wheel.

4.3.3. Folding method of folding bike

1 Rotate first the black butterfly nut counterclockwise, until the white positioning block slides off the groove;

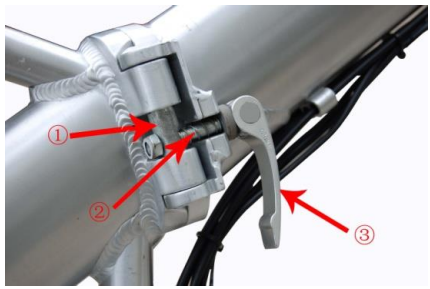
2 Place the Vertical handle stems down downward until the Vertical

handle stems contacts with the frame;

3 Rotate when loosening the closely locked handle counterclockwise;

4 Rotate the closely locked bolt to the left until the bolt is entirely out of the groove;

5 Lift the closely locked fastener upward so that the bolt bottom plane is higher, and rotate the front end of the frame to the left.



①Pin ②Locking bolt ③Fastening handle ④Butterfly nut ⑤Positioning block

4.4 Reflection and lighting system

The reflection system includes a reflector on the rim, front and rear passive lamp, backpack, helmet and reflective patch on riding clothes. The lighting system is mainly the battery or the self-power-generated front and rear lamp. These items help to mark your own position when riding at night, convenient for pedestrians and other vehicles on the roads to avoid (recommendation: purchasers in accordance with local laws and standards use the reflector and lighting system).

4.5 Safety height mark

4.5.1 Position of Vertical handle stems

Figure 1

The Vertical handle stems can be appropriately adjusted depending on personal preferred riding perspective, but the insertion mark (that is, the safety line) can not be exposed; in case of improper use, it may cause serious injury to the rider (as shown in Figure 1).

Adjustment method:

1 Loosen the handle core screw rod;

2 Move the Vertical handle stems to the appropriate height, and pay attention to not exceeding the safety mark (that is, the safety line);

3 Fasten the core screw rod;

4.5.2 Seat Position

When you sit on the seat 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 appropriate height; if the rider can tread on the Pedal only by toes

Figure 2

or legs can not stretch slightly, fatigue and sports injury will be caused, so there is a careful need for adjustment of the height of the Seat post.

The Seat post has a MAX marked line (that is, the safety line), and the so-called insertion mark can not be higher than the seat connector. In case of improper use, serious injury may be caused to the rider (as shown in Figure 2).

Seat angle: in order to avoid leaning forward when riding, it is appropriate for the front end of the seat to lean upward, the front and rear position can be appropriately adjusted based on individual height and the seat bar is generally in the middle.

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

Maximum height of the seat: move the quick release handle to the OPEN position, then lift the Seat post to the top but the safety line is not exposed, when it is the maximum height of the seat.

Measurement method: place the bike perpendicular to the ground, and the distance from the highest part of the curved surface of the seat vertical to the ground is the height of the saddle.

4.6 Braking system

The braking system is an accessory necessary for each bike and is the key to traffic safety; before driving, you must understand your braking system, and do a good job in the inspection and adjustment work.

The general idea is that upon hard braking, the bike will surely stop

in a short distance, but that is wrong. Upon hard braking, when the wheels are suddenly jammed by the brake rubber, the bike will glide horizontally, and it not only is dangerous but the braking distance will be lengthened. Therefore, the concept should be established is that the braking system is only used to adjust the speed of the bike.

The braking system typically includes a Brake handle, brake (disk brake, V brake and many other types of brakes) and brake cable.

4.6.1 Brake handle

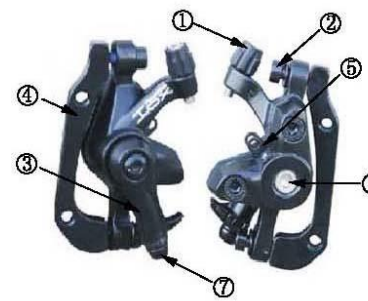
The structure of the Brake handle is as shown (in the left drawing), and the left Brake handle controls the front brake and the right Brake handle controls the rear brake.

. The adjusting screw is used to adjust the distance between the brake shoe block and the Rim.

. The effective stroke of the brake cable is about a half of the distance between the handle of the Brake handle and the grip of the Across handle Stems; if the brake is tight when the handle of the Brake handle is almost approaching to the grip of the Across handle Stems, the distance between the brake shoe block and the Rim is too large, it needs to be adjusted.

4.6.2 Disk brake type brake

1 Stroke adjusting bolt
2 Position adjusting bolt
3 Rocker arm
4 Permanent seat
5 Brake shoe block



6 Shoe block adjusting bolt
7 Permanent seat of brake line
Adjustment method of the brake shoe block:
1 Loosen the positioning bolt;
2 Adjust the distance of the shoe block through the left and right knob; when the shoe block adjusts the left knob of the bolt, the distance of the brake shoe block is increased, and vice versa it becomes small (as shown in the disk chart). Depending on the circumstances, the braking is
adjusted;

4.6.3 V brake brake

① Spring adjusting bolt
② Fixed bolt
③ Permanent seat of hanging line
④ Anti-layer set
⑤ Elbow
⑥ Positioning block of elbow
⑦ Brake shoe block
⑧ Adjusting bolt of shoe block
⑨ Left gate arm
⑩ Right gate arm
Adjustment method of the brake shoe block:
1 Loosen the fixed screw and see there are three holes in the permanent seat;
2 When moving the spring foot to the up hole, the elastic force increases, so that the distance between the brake shoe block and the Rim is increased, and vice versa it becomes small. Depending on the

circumstances, the braking is adjusted accordingly;

4.6.4 **Brake cable**

. The brake cable of the flat handle

. The bifurcation situation of the internal line should be avoided, so a tail sleeve had best be covered on the line end.

. The brake cable should be regularly taken out to be oiled, to avoid too large resistance arisen from rust.

. The brake cable in a linear way has the best function, and if it must be bent, the turning with a small arc should be avoided as far as possible.

. The length of the brake cable is based on the principle that it will not be stuck when the handlebar turns left or right to the limit.

Common sense of the use of braking system：

* When the distance between the brake shoe block and the Rim is too large, it is adjusted by the Brake handle or the adjusting screw on the folder gate device.

* When the lines of the brake shoe block are worn seriously, replace it timely in order to maintain traffic safety.

* When not riding for a long time, please loosen the folder device to avoid fatigue of flexibility, but pay attention to recovery of the gate device before riding.

* When riding in rainy days, the function of any gate device will be weakened, so please keep a longer safe braking distance and reduce the speed.

* The surface on the brake disc, shoe block may not be oiled, so as to avoid serious injury.
* If the brake cable is ripped, it may cause the brake cable to be broken and this is very dangerous, please replace timely.

4.7 Speed control system

The speed control system is used to cater for various terrain and clockwise and counterclockwise wind conditions, and to mix with physical strength appropriately. The entire speed control system includes a Derailleur, front and Back fender, chain plate, and flywheel and shift cables.

The number of the speed change series is the number of fluted disc × the number of flywheel pieces.

For example: three pieces of chain plate× 6 flywheel pieces = 18 speed change series, and so on.

4.7.1 **Derailleur**

Type of Derailleur: rotary and dial type (as shown)

The Derailleur is separately positioned on both sides of the Across handle Stems, and the left controls the forward speed and the right controls the backward speed.

When the forward speed grip rotates to the riding direction, big teeth change to small teeth, and on the contrary small teeth change to big teeth.

When the backward speed grip rotates to the riding direction, big teeth change to small teeth, and on the contrary small teeth change to big teeth.

4.7.2 **Derailleur**

The derailleur is classified into the front derailleur and Back fender (as shown in Figure 1, 2)

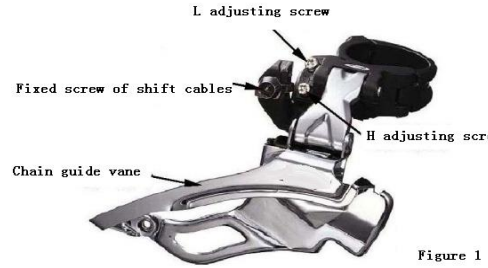


Figure 1

When the shift cables are ɔse or too tight, if the speed controller does not work properly or the chain falls off, the H, L bolt is adjusted.

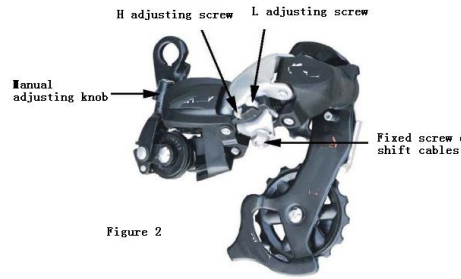


Figure 2

H bolt: when the chain speed changes to the biggest fluted disc, the chain will fall off, and the H bolt will be locked. But if it is too tight, the chain can not climb to the biggest fluted disc.

L bolt: when the chain is toward the inside fluted disc and the chain falls of, the L bolt is locked. But if it is too tight, the speed change can not be downward. Therefore it is appropriate to adjust the H, L bolt to a suitable position.

Adjust the chain to the minimum flywheel, adjust the H screw so that the guide pulley with the smallest gear is on a straight

line, and then adjust the chain to the largest flywheel, and adjust the L screw so that the guide pulley with the flywheel is on a straight line (as shown at the right)

4.7.3 Chain

Wear the chain and elongate it to a certain extent, it will in the chain will climb to the chain wheel and jump, and at this time the chain has not meshed with the chain wheel correctly, thus affecting the cycling performance; in case of such a situation, the chain should be timely adjusted.

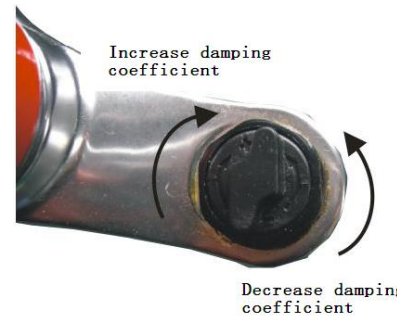
To determine the length of the chain: adjust the front derailleur to the lowest shift (the smallest tooth of the chain ring) and also adjust the Back fender to the lowest shift (the smallest tooth of the flywheel) to check whether the chain sag is more than 15mm (as shown). If it is more than 15mm, the chain is too long, please go to your supplier to shorten the chain in order to maintain the best cycling performance of your bike.

If the size is bigger than 15mm, the chain is too long

Common sense of the use of speed control system：

* Do not tread reversely in the course of speed change so as not to lead to failure and the chain falls off.
* As far as possible, do not change the gear-speed ratio substantially and should change the speed in accordance with the order.
* If the electric bike is idle for a long time, the chain will be changed to the minimum keyboard tooth and the smallest flywheel, so as to avoid fatigue of the mechanical flexibility.
* The chain, fluted disc, flywheel, Derailleur should be always washed, wiped, and lubricated (oiled appropriately).
* The derailleur should avoid the jump-class speed change, which will lead to rapid wear and tear.

4.8. Damping system



Damping can keep the tire buffer contact with the ground when your bike is running on the uneven road so that the driver feels more comfortable while driving on the uneven road. Damping hardness can be adjusted by adjusting the damping coefficient according to roadconditions and personal preferences.

Adjustment method of damping (as shown): rotate toward the “+” direction to increase the damping coefficient, thus increasing the damping hardness; rotate toward the “-” direction to reduce the damping coefficient thus decreasing the damping hardness.

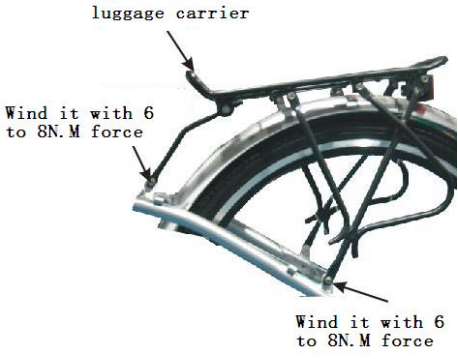
4.9. Luggage carrier

1 The largest load of the luggage carrier is 25Kg;

2 Do not adjust the luggage carrier arbitrarily, please consult the supplier to make an adjustment if necessary;

3 Do not transport heavy objects; if a heavy object is put on the rear rack, the bike's steering performance will be affected and the braking performance will be reduced, as will result in danger

4 The assembly of the luggage carrier is (as shown):



5. Use and maintenance

5.1. Routine inspection of electric bike before use

1 Install the battery box in the slot of the battery box, open the power supply switch and check whether the functions of all the electrical appliances are normal.

2 Safety inspection (see the notes to safe use in the Manual)

3 Check whether the governor switch handle rotates and is reset flexibly.

4 Check whether the braking power-off function and braking effect are in good condition (dry braking distance 4m, wet braking distance 15m).

5 We advise against performing maintenance operations that involve removing parts or components. If necessary, please contact your Authorized Dealer's Customer Service.

WARNING:

1. As with all mechanical components, the bicycle 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 coloring in highly stressed areas indicate that the life of the component has been reached and it should be replaced.

2. Danger of wheel failure due to rim Wear Replace wheel when any part of the Rim Wear Groove is not visible.

5.2 attentions about the battery and charger

5.2.1 Battery

Never short circuit the discharge or charge terminals of the battery.

Never charge the battery by discharge terminals or discharge the battery by charge terminals.

Keep off the battery from fire and excessive heat. Never put the battery into fire.

To avoid damage to the battery, never subject it to intense physical shock or severe vibration or impact.

Protect the battery from water or other moisture. Protect the discharge and charge terminals of the battery from rain or water logging.

Operating temperature range when charge: 0~45℃

Operating temperature range when discharge：-20～45℃；

Humidity while battery in working state：≤80% RH

Keep the battery away from children.

When the battery is not in use for an extended period of time, remove the battery from the load for storage.

If you have any questions about this battery or its usage, please do not hesitate to contact the Customer Service Department.

Never disassemble the battery without permission.

5.2.2 Charger

- Charge the battery after you buy this e-bike or the power is low.
- Make sure the charger is as least 1M away from computer, TV, fridge, washing machine and other electric machine while charging.
- This charge is only used in doors. Please use it on the dry and airy conditions, and the temperature is not more than 45°C.
- Disconnect it when there it smells un-normal while charging, and take it to the after sales.
- Use only the special charger supplied by our company. And don't use this charger to charge the battery from other company.
- Do not use the charger in unstable or having a great lot of lampblack and dust, or excessively damp place.
- If the charging finished, disconnect the connection to the wall outlet, and then disconnect it to the battery.
- Avoid children touch it while charging.
- Never disassemble or refit the charger.
- Never put anything on the charger.
- Never put any liquid or metal into the charger.
- Never plug or unplugs the charger with wet hand
- Do not touch the charger when thunder or lighting.
- Never twiddle the charger or battery while charging.
- Avoid using the charger in direct rays.
- Keep well ventilation when the charger is operating.
- Do not disconnect the battery output while charging.

- Do not connect the charger to the wall outlet if the charger is disconnecting to the battery.
- Do not use the motor; neither maintain the e-bike while charging.

5.3 Everyday use and inspection of electric bike

In everyday use of the electric bike, a number of mechanical, electrical parts will be worn, screws and other fasteners are also easy to loose and the functions of the electrical appliances would be lost. If the occurrence of these phenomena is not noted, it is prone to failure, and it is also prone to the risk when cycling, so drivers must be responsible for inspection and maintenance in peacetime.

5 .4Bicycle inspection and care

5.4.1 Regular Cleaning

- Remove the battery box from the e-bike before carrying out regular cleaning.
- DO NOT use water to clean the e-bike, as the electrical and electronic systems may get wet, resulting in personal injury or malfunction of the bicycle.
- Delicately wipe any dirty painted or plastic parts with a soft, damp cloth and a neutral cleaning solution. Carefully dry the parts with a soft, dry cloth to finish.
- Clean the battery contacts with a damp cloth.
- **DO NOT** grease or use a greasy cloth to wipe down the electrical connectors, brake pads, wheels, tires or plastic parts.

5.4.2 Regular maintenance (every 1`2 months)

Always carry out the following checks:

- Check that the handlebar attachment and saddle post are correctly inserted and tightened.
- Check that the wheel hub mounting nuts are correctly tightened.
- Check that the wheel rims are not cracked and that no spokes are loose or broken.
- Check that the tire s are not worn or cut.
- Check that the tire s are correctly inflated.
- Check that the battery contacts on the frame are not dirty or oxidized.
- Check that the batteries are sufficiently charged.
- Check that the front and rear lights are working correctly.
- Check that the front and rear brakes brake effectively.
- Check that the cables are sufficiently greased, and that the brake pads are in good condition.
- Check that frame welds are in good condition and are free from corrosion or oxidation

5.5 Lubricating the e-bike

To maintain your e-bike in proper working order, be sure to carry out regular lubrication, as indicated in the following illustration:

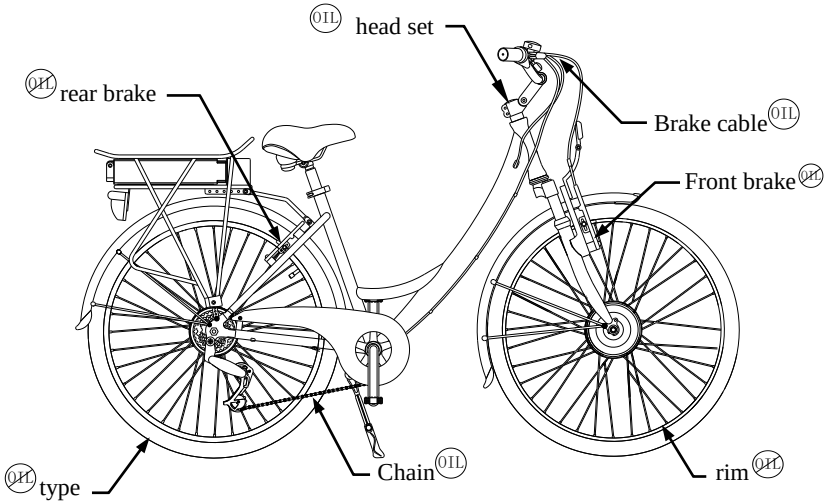
Use specific transmission lubricants for the chain, free wheel and gears every 1–2 months, or if the driveline is dry.

Grease the brake pins, front wheel hub, saddle post and pedal pins every 1–2 months, or in case of excessive friction.

Do not lubricate or grease the speed controller, brake pads or wheel rims

OIL Parts should be lubricated

OIL Parts should not be lubricated



6. Riding technology

A correct cycling posture is the mother to safety: the riding posture is determined by the position of figure and shadow of the contact point (handlebar, seat, Pedal) of the bicyclist and bicycle. However the posture is closely related to the height and size of the bicyclist. So a single-bicycle cycling posture not only determines the efficiency of muscle contraction movement, but at the same time determines whether the bicyclist can manipulate the handlebar and brake safely. Therefore, a correct cycling position is the mother to safety. The safe cycling techniques are described one by one in the following:

◆ Adjust three points to suit your body; bicycling is just like doing the clothes, and it is necessary to measure the figure and make adjustments. The method of adjusting three points is a combination of bicycle sports mechanics, exercise physiology and safety driving three principles.

1) Adjust the position of the seat: tread the Pedal downward by heel to enable all muscle of the lower extremity joints contracts smoothly, and at the same time the principle is the legs can slightly stretch straight.

2) Front and rear position: tread the position of the Pedal to the inclined 45°, and then adjust the seat before and after, to tie in with the greatest position of the Pedal as the principle.

3) Adjust the front and rear and the height of the handlebar: for the height of the handlebar, in general, the up warping type handle is about 30 to 50mm higher than the seat, and the flat type handle is the same high as the seat. The top of the below curved type is the same height as the seat. After adjusting, pay attention to the direction of the handlebar and then lock.

◆ Sitting posture on the seat: similar to the posture on horseback, the weight is scattered on the handlebar and Pedal, and all the weight must not be placed above to prevent the pain in the hip.

◆ Skills of the Pedal: the position of the foot is one third in the front of the length of shoes, and it is the most appropriate to fall on the middle of the Pedal. Feet must be parallel with the centerline of the bike, and it will diminish the efficiency of the Pedal if the feet are too open or narrow; the speed should maintain uniform, or else the drivers may feel tired; it in particular notes that the hook pulling action of the latter part will hook the Pedal up.

◆ Slowdown technology: the speed change gear slows down but does not accelerate, as is to seek for the stability of the number of revolutions of the Pedal, so as to relieve the fatigue arising from uneven force. So, the speed change is used for more labor-saving and comfortable, and the time for speed change is 1:

climbing, 2: uphill, 3: uneven road surface, 4: against the wind and 5: when feeling tired. It can also be said the time is when feeling not comfortable in the process of riding.

◆ Brake technology: as we all know the principle of hard braking is first stopping the brake and then stopping the bike, then stopping the front brake, but in case of an emergency, everyone will stop all together. If the braking distance is appropriate, the bike can stop securely; if the slowdown is too fast, people often would be thrown forward and in order to prevent this danger, the best way is intermittent braking, and meanwhile the hip is pushed backward. In rainy days, increase the braking distance due in safety and reduce the running speed.

7. Troubleshooting

S/N	Failure	Cause	Eliminating methods
1	Failed speed change or too low maximum velocity	(I) Low battery voltage (II) Bad governor handle (III) Bad controller	(I) Charge the battery fully (II) Replace the governor handle, controller
2	Turn on the power supply, but the motor does not work	(I) Bad governor handle (II) Bad electric door lock and contact point (III) Bad controller	(I) Replace the governor handle, controller (II)Re-weld the contact part
3	Inadequate mileage of one-time charging continuation line	(I)Tire lacks of air pressure (II) Inadequate charging or failed charger (III) The battery has been damaged or its life has expired (IV) Frequent braking startup, overloading	(I)Tire is full of air (II)The battery is adequate or replace the charger (III)Replace the battery
4	The charger is not charged	(I) The charger wiring is loose or damaged (II) The battery weld line falls off or is damaged	(I) Weld the connecting line or replace (II) Weld the connecting line or replace
5	The booster has no power assisting	(I) The induced cartridge has poor contact or is damaged (II) The booster wiring is bad or damaged	(I) Adjust the induced cartridge or replace (II)Re-connect or replace