

MOONCOOL

Electric bike Instructions



Life moves pretty fast
You don't have to

Dear Customer

Thank you for purchasing our product!

Please read these instructions carefully.

This manual will show you how to assemble your electric bicycle. Please read the manual and follow it. If you have any questions, it is recommended to ask a bicycle mechanic for help. You can also contact us via your shopping account.



Important Notes

This manual contains important information of safety, performance and maintenance. Please ensure that you have read and understood the following warnings and precautions before using the this product for the first time. Special tools and skills are required to assemble and adjust the bicycle for the first time. If possible, it is recommended that it be done by a certified Bicycle mechanic.

If you lend your electric bicycle to others, please ask them to read this manual to minimize the possibility of accidents.

WARNING: Wear suitable and qualified helmets when riding, and fluorescent or reflective clothing at night.

WARNING: As it is impossible to predict every situation or condition that may occur during riding, this manual makes no representations about the safe use of bicycles under any circumstances. There are unpredictable or avoidable risks in using bicycles, which are borne by cyclists alone.

WARNING: Your existing insurance policies may not cover everything that could occur when using an electric bicycle. Please consult your insurance company or your insurance broker.

WARNING: Improper assembly of your electric bicycle may cause significant damage to the bicycle and even personal injury.

WARNING: The motor, controller, sensor, battery and various cables on the bicycle shall not be used for other purposes. Do not disassemble or modify these parts, as this may cause serious damage to them. It may also do harm to your personal safety.



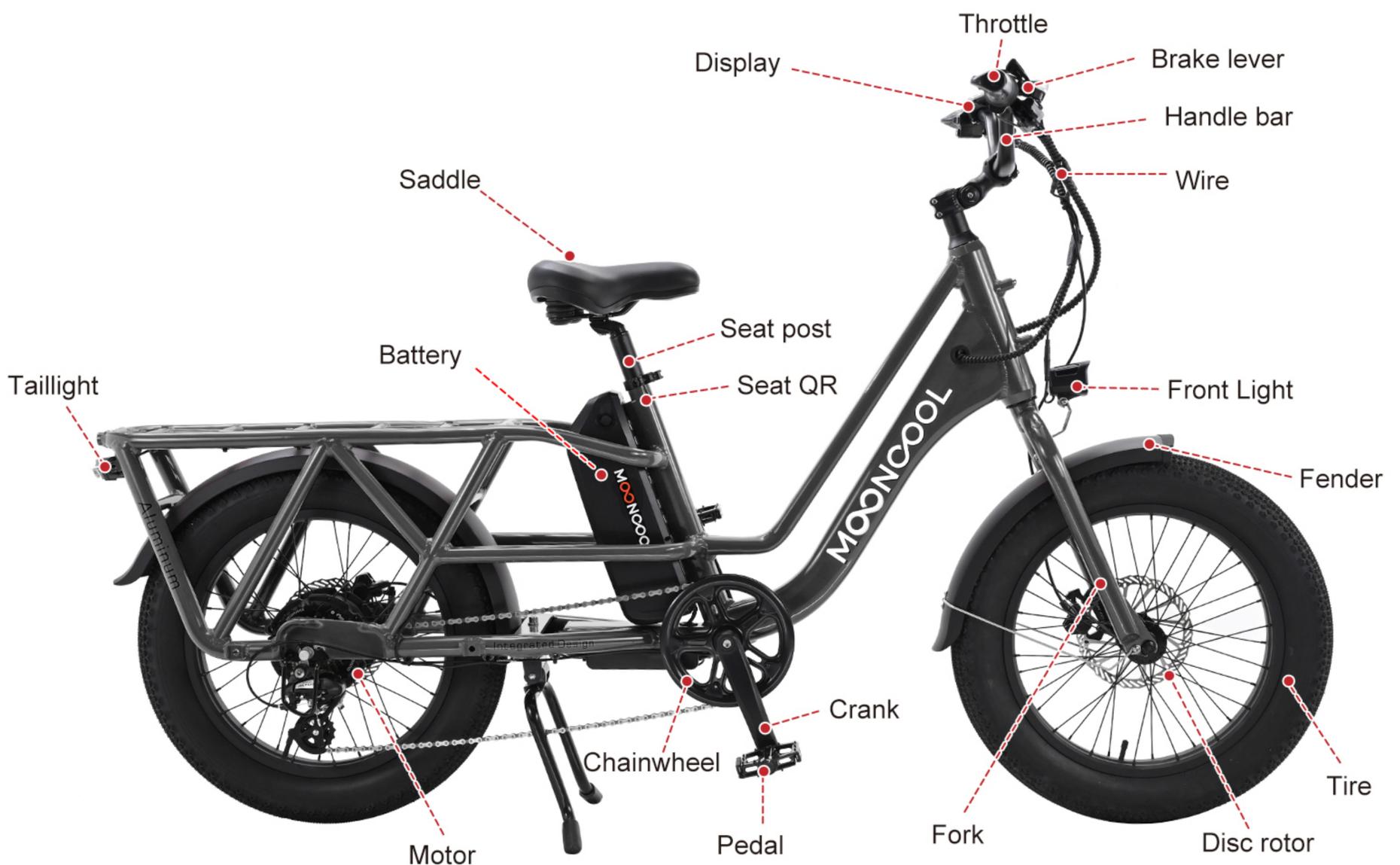
CONTENTS

1、 Parts Instructions	01
2、 Assembly Instruction	02
2.1 Handle Bar Assembly	03
2.2 Front Fender and Light Assembly	04
2.3 Front Wheel Assembly	05
2.4 Seat Assembly	06
2.5 Pedal Assembly	07
2.6 Battery	08
2.7 Connect All Wire	09
3、 Handle Bar Instruction	10
3.1 Brake Usage	10
3.2 Throttle Usage	11
3.3 Display Usage	11
3.4 Charging the battery	15
4、 Normal Instruction	16
4.1 Battery	16
4.2 Charger	20
4.3 Riding	21
4.4 Warranty	23
4.5 Return&Exchange	23
5、 Troubleshooting	25
6、 Data Sheet	27

1 PARTS INSTRUCTIONS

Pictures are for reference only and everything is subject to the actual product you received!

TIPS: You can choose to use other tools with better functionality for the installation.



2

ASSEMBLY INSTRUCTION

STEP 1 HANDLE BAR



STEP 2 Fender and Front light



STEP 3 Front wheel



STEP 4 Seat



STEP 5 Pedal



STEP 6 Battery



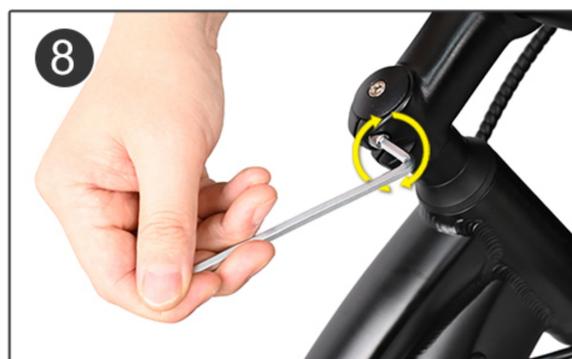
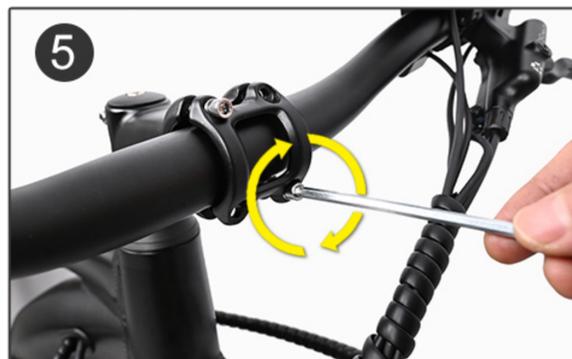
2.1 HANDLE BAR ASSEMBLY

The status before assembly and get the wrench 4/5# ready



Assembly Steps

1. Loosen the bolts*3 as marked anticlockwise by M5/M4 Wrench (Not removed) and Reverse the stem 180degree forward the front;
2. Turn the clamp bolt anticlockwise by M5 or M4 Allan Wrench;
3. Remove the clamp*1pc and bolts/4pcs by M4 wrench;
4. Attach the Handle bar (Display in left side and Shifter in right side);
5. Put the cover with the bolts and tighten bolts clockwise by M4 wrench firmly;
6. Meanwhile,make sure the angle of the brake lever is -15-30degree and the center of the Handel bar is under the clamp;
7. Keep the stem direction in the line with the front wheel. And then tighten the bolt of the top cover clockwise by M5 wrench meanwhile make sure the fork is turned freely and smoothly;
8. Tighten the bolts*2 of the stem clockwise by M5 wrench firmly;
9. Finished.



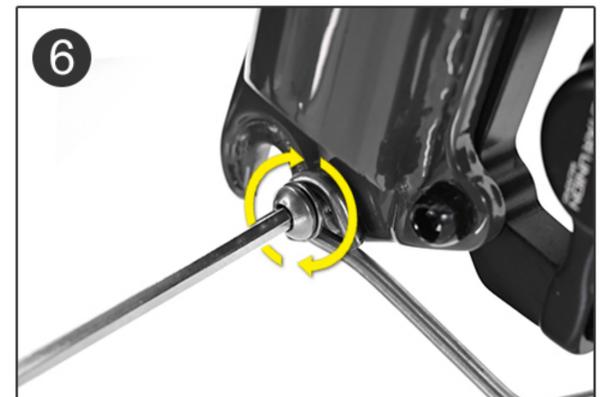
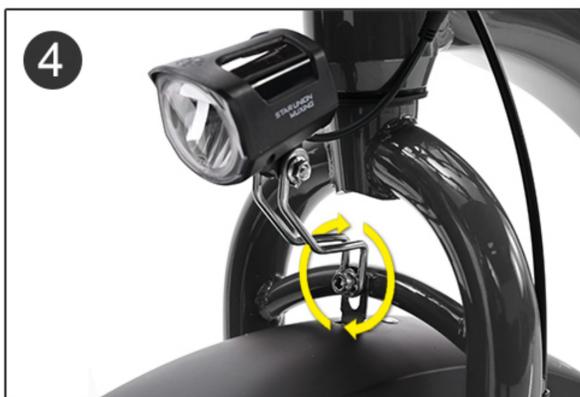
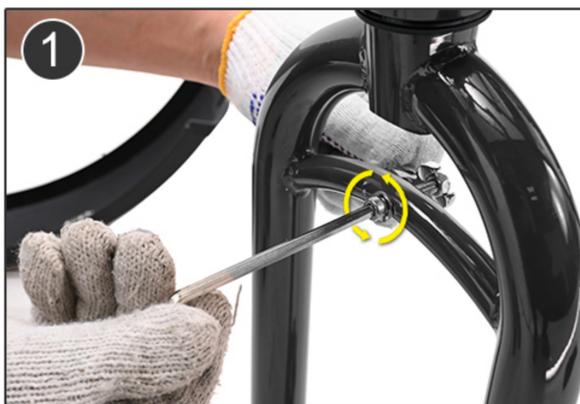
2.2 FRONT FENDER AND LIGHT ASSEMBLY

The status before assembly and get the parts and the wrench M4 /10# ready



Assembly Steps

1. Turn the bolt anticlockwise by M5 Allan wrench meanwhile fix the nut by the 10# wrench. Remove the nut and bolt;
2. Put the bolt through the bracket of the light and fender;
3. Adjust the angle of the light correctly;
4. Then tighten the nut and bolt clockwise firmly by the M5 and 10# wrench;
5. Remove the bolt on the fork dropout;
6. Put the bolt through the fender leg and tighten it;
7. Finish it.



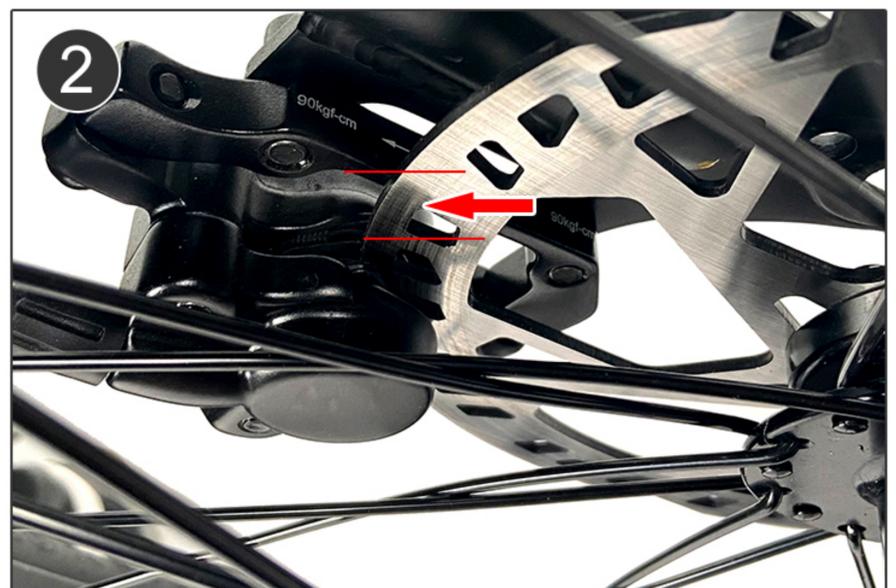
2.3 FRONT WHEEL ASSEMBLY

The status before assembly and get the parts and the wrench 15# ready



■ Assembly Steps

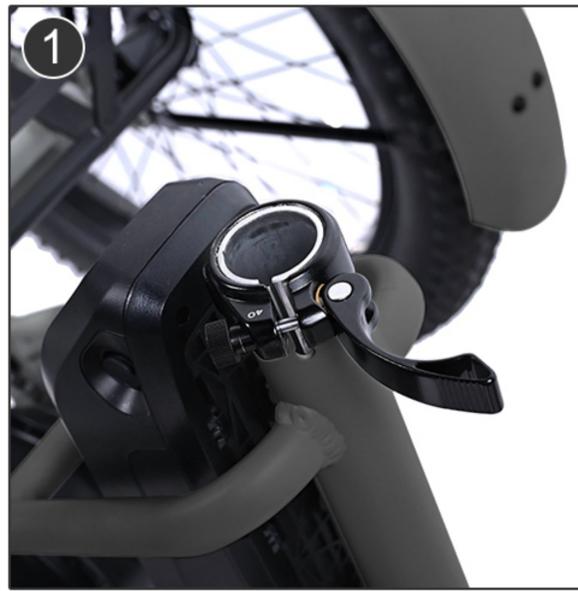
1. Remove the nuts/washer*2sets from the hub axle by hand and put the whole wheel between the dropouts of the fork
2. When installing the wheel, make sure the disc rotor is put into the brake caliper correctly.
3. Install the nuts and washer on the both side of the hub axle and tighten them.
4. Finish it.



2.4 SEAT ASSEMBLY

Assembly Steps

1. Open and loosen the seat tube QR.
2. Insert the seat post into the seat tube.
3. Make sure the MINIMUM INSERTION mark must remain in the tube.
- 4-5. Tighten the nut clockwise. And push the QR lever to lock the clamp. Be sure the Seat height is right and secure.
6. Finish it.



2.5 PEDAL ASSEMBLY

Get the parts and 15# open end wrench ready.



Assembly Steps

1. Please see the “WL / L” and “WR / R” on the axle of the pedal. The pedal marked “WL” is in the left side(No crank wheel side) and the one marked “WR” is in the right side(Crank wheel side);
2. Attach the pedal marked “WL or L” into the crank in LEFT side(No crank wheel side). Turn the axle towards the FRONT wheel and tighten it by the open wrench firmly;
3. Attach the pedal marked “WR or R” into the crank in RIGHT side(Crank wheel side). Turn the axle towards the FRONT wheel and tighten it by the 15mm open wrench firmly. (Torque 45nm.).



2.6 BATTERY

■ Assembly Steps

1. Remove the seat.
2. Insert the key and turn it anticlockwise as the arrow direction marked on the hole.
3. Pull the battery out. (**REMOVE**)



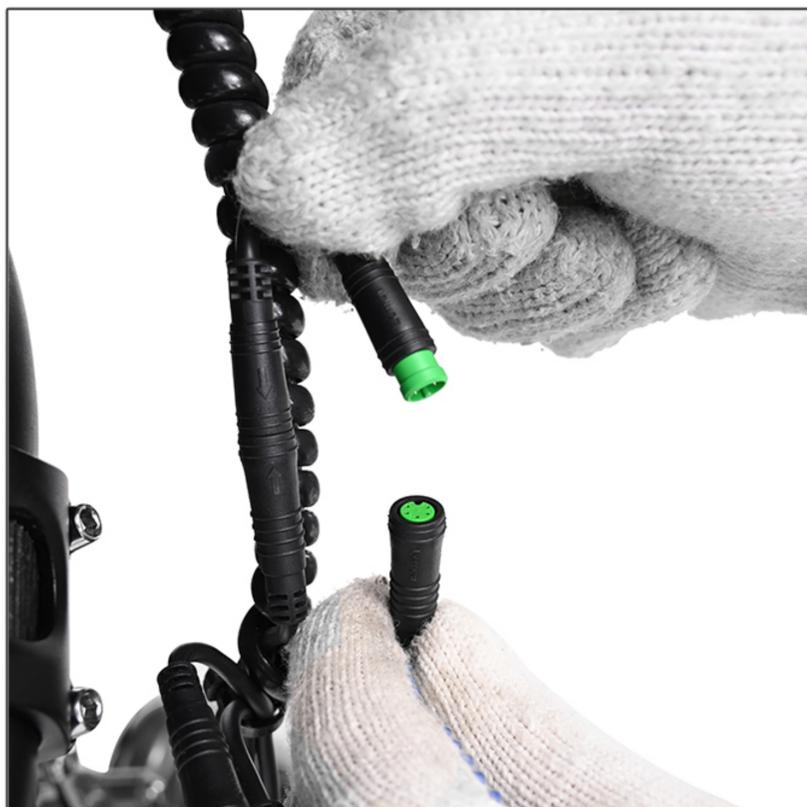
4. Install the battery

When you install the battery, please note that the battery should match the guide rail plate as below show. Turn the key and lock the battery.



2.7 CONNECT ALL WIRE

Connect the plugs of the front light and Display. Please note align the arrow marked on the plug.



3

HANDLE BAR INSTRUCTION

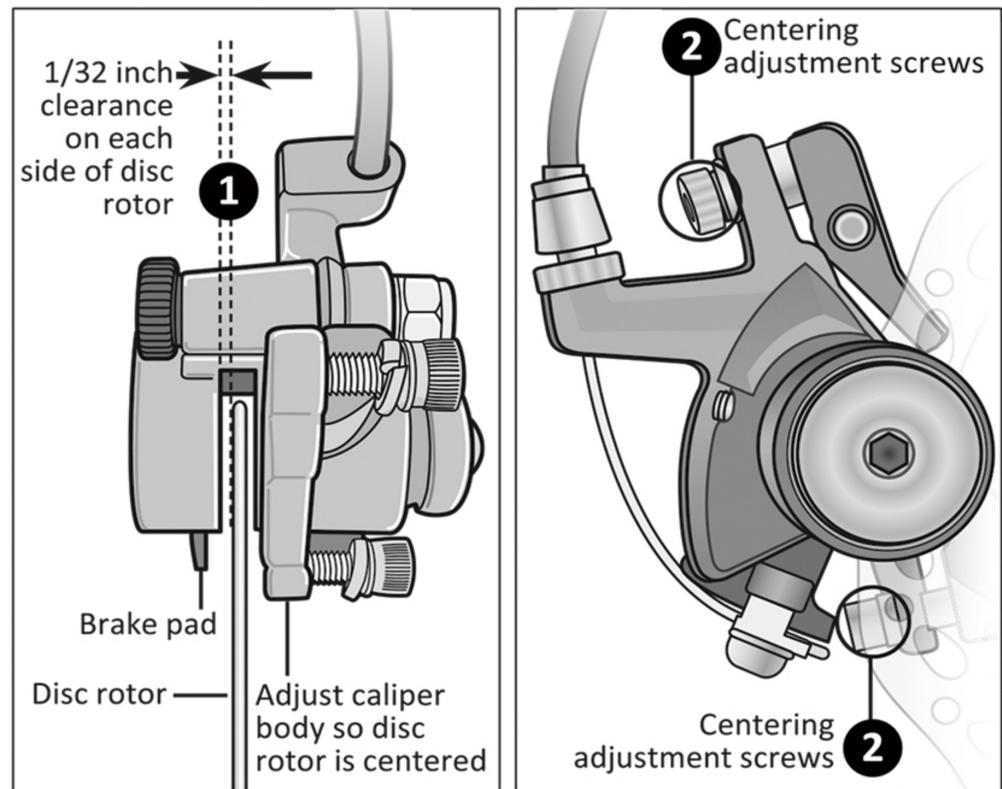


3.1 Brake Usage

The hydraulic brake has been qualified to adjust at the factory. If you need to adjust it, see the instructions below or seek help from the bike shop.

Realign the Caliper Body

- 1 Using a 5 mm Allen wrench, loosen the two centering adjustment screws. Adjust the caliper body until the gap between the disc rotor and the brake pads in the caliper body is even (1/32" per side).
- 2 Tighten the centering adjustment screws.



⚠ WARNING!

Failure to follow all local and state regulations and laws pertaining to bicycle use as well as the safety warnings in this manual may result in serious injury or death. Always follow all local and state regulations and laws pertaining to bicycle use, follow the safety warnings in this manual and use common sense when riding the bicycle. Always conduct a pre-ride check of the bicycle condition before riding.

BRAKE OPERATION

⚠ WARNING!

- If the front brake is applied too quickly or too hard, the front wheel can stop turning resulting in a front pitch over or cause the bicycle to lose steering function leading to a crash.
- Disc brake rotor's become hot during use and can burn the skin if contacted. Do not touch or come in contact with the disc rotor when it is hot. Allow it to cool before touching.

Hand operated brakes have a separate hand lever to operate front and rear brakes. Front hand brake levers are located on the left side of the handlebar, and rear hand brake levers are located on the right side of the handlebar.

You may operate one brake at a time, or all together, however, be careful to pay close attention to front brakes locking up. To avoid this:

- Apply both brakes simultaneously, while shifting your body weight back slightly to compensate for braking force.
- As terrain changes, the rider must practice and learn how the bicycle will respond in a new terrain or weather change. The same bicycle will react differently if it is wet, or if there is gravel on the road etc.
- Always test the brakes and be sure you feel comfortable with the reaction. If the riding conditions are too steep (off road for example) and you are unsure, dismount the bicycle and walk past the questionable terrain before riding again.
- Remember that as you apply the brakes your weight will want to shift forward, and the wheels will want to stop.

Note: See the above for information on brake adjustment.

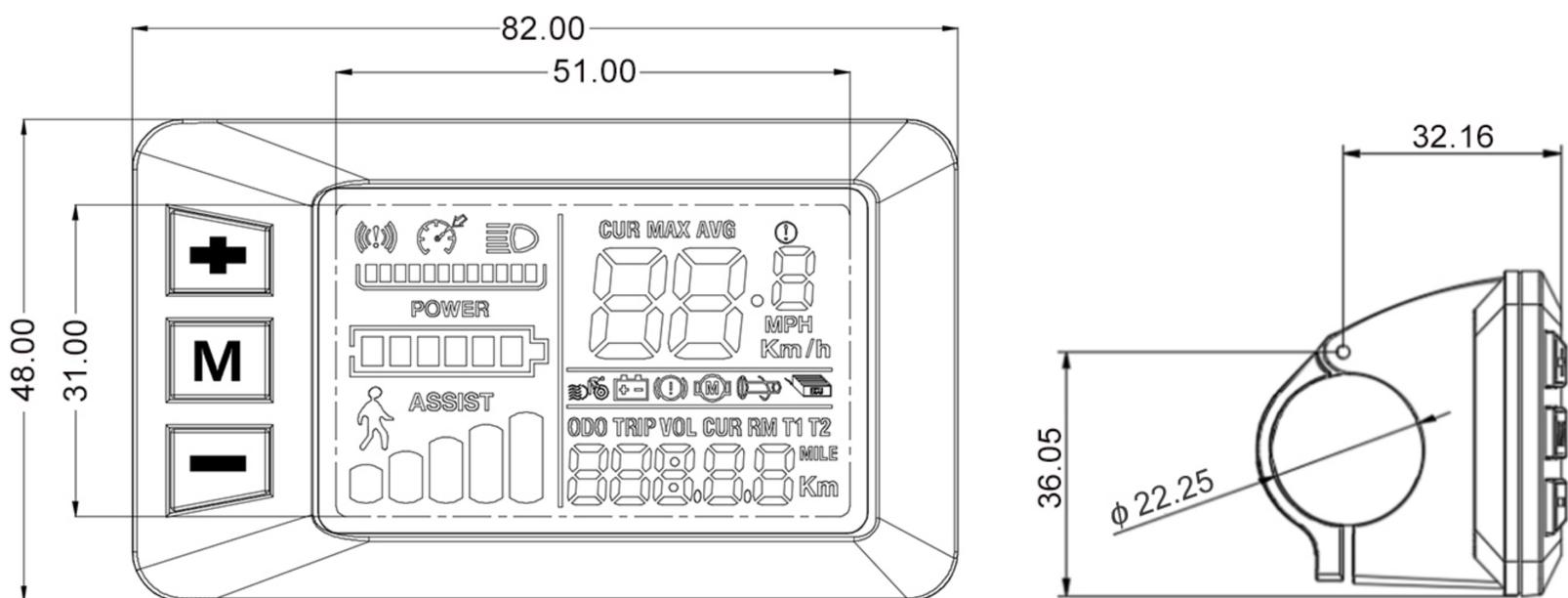
3 HANDLE BAR INSTRUCTION

3.2 Throttle Usage



The default boot is “ASSIST” in 0 gear level, and the throttle does not work. Gear level in 1-5, the throttle work. The speed is same in gear level 1-5 when use throttle.

3.3 Display Usage



3.3.1. Function description:

① Display function

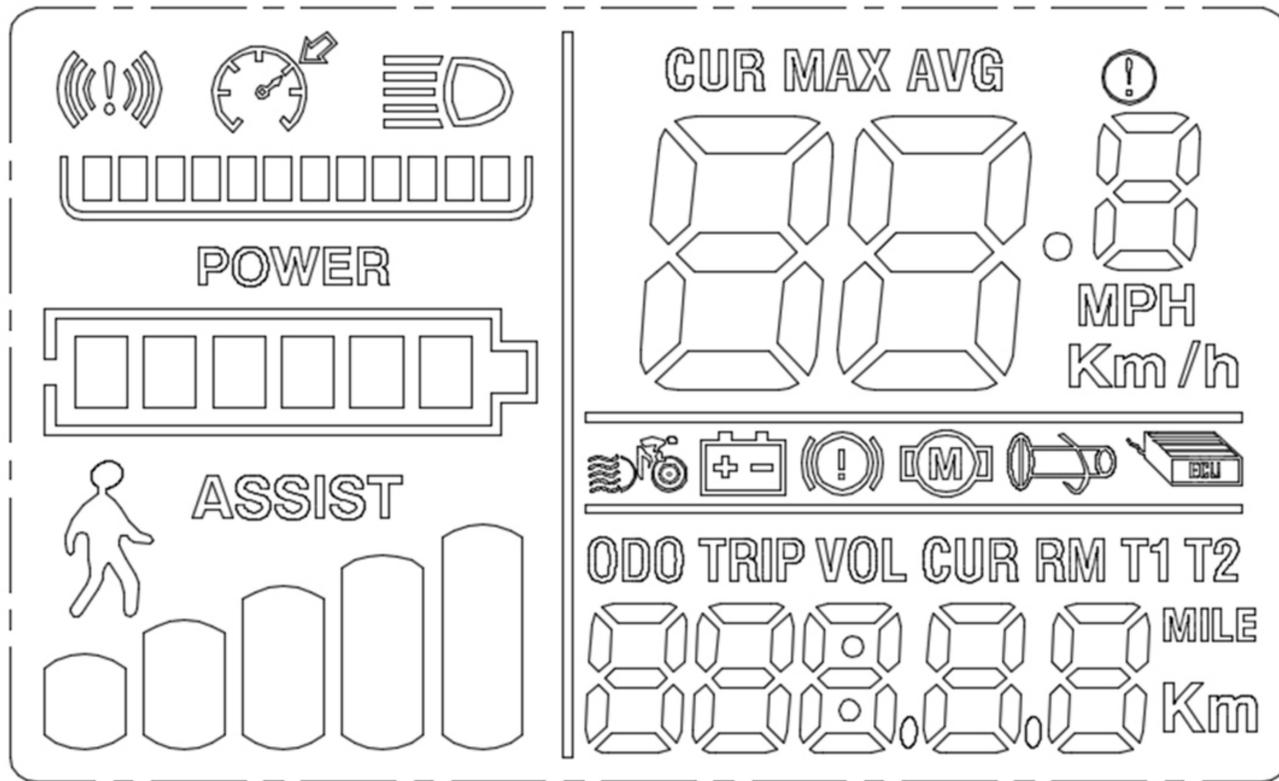
Speed display, power gear display, power indication, fault indication, total mileage, single mileage, headlight display, single driving time display.

② Control, setup function

Power switch control, headlight switch control, 6 Km/h point control, wheel diameter setting, maximum speed setting, idle automatic sleep time setting, backlight brightness setting, voltage level setting.

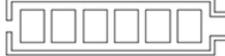
3 HANDLE BAR INSTRUCTION

3.3.2. Display full content (full display within 1 S boot)



3.3.3. Presentation

① **Headlights** 

② **Battery power display BATTERY** 

③ **Multi-function display area** ODO TRIP VOL CUR RM T1 T2

Total mileage ODO、 single mileage TRIP、 fault code Error、 power WATT、 maintenance (not yet in use)

④ **Vehicle pattern** POWER 
 POWER: Power Mode , Speed Display Area

Maximum velocity MAX、 average velocity AVG; MPH, KM/H Unit

The meter will calculate the true speed based on the wheel diameter and signal data.

⑤ **Vehicle status display area** 

⑥ **Vehicle status code meaning:**

VOL Digital Voltage;  Brake Tips;  Motor Failure;  Throttle

failure;  Communication failure;  Controller failure;  Cruise

3

HANDLE BAR INSTRUCTION

7 Fault code

Fault code (decimal)	Fault status	Remarks
0	Normal state	
1	Reservations	
2	Brake	
3	Power sensor failure (riding mark)	Not here
4	6KM/H cruises	
5	Real-time cruise	
6	Battery undervoltage	
7	Motor fault	
8	Throttle fault	
9	Controller fault	
10	Communication reception failures	
11	Communication transmission fault	
12	BMS communication failures	
13	Headlamp fault	

- 1) The communication error is because the instrument cannot detect the reply of the controller data within 10 seconds. Possible causes are as follows:
 - ① The communication wire harness of the display screen and the controller is wrongly connected or broken.
 - ② The controller does not match with the instrument protocol.
 - ③ The display communication circuit is burnt.
- 2) Possible causes of Hall component failure:
 - ① Hall sensor of motor is damaged.
 - ② Hall wire is wrongly connected or not connected properly.
- 3) Possible causes of acceleration handle failure:
 - ① The handle does not return to its original position.
 - ② The handle is not connected properly.
 - ③ The handle is damaged.
- 4) Possible causes of motor phase failure:
 - ① Motor phase line is not well connected or wrongly connected.
 - ② Short circuit between motor phase lines.
- 5) Possible causes of brake failure:
 - ① The brake handle does not return.
 - ② The brake is not properly connected or damaged.
- 6) Possible causes of abnormal current: The MOS of the controller is damaged or abnormal.

3

HANDLE BAR INSTRUCTION

3.3.4. General Operation

① Switching the E-bike System On/Off

To switch on the E-bike system, hold the MODE button for 2s. In the same way to hold the MODE button for 2s again, the E-bike system will be switched off. Press the MODE button to show the indicated information in turn.

② Switching Push-assistance mode On

To access the push-assistance mode, hold the DOWN button for 3s, the E-bike will go on at a uniform speed of 6 Km/h, “

Push-assistance function may only be used when pushing the E- bike. Danger of injury when the wheels of the E-bike do not have ground contact while using the push-assistance function.

③ Switching the Lighting

To switch on the display backlight and headlight of the E-bike, hold the UP button for 2s. In the same way to hold the UP button for 2s again, the backlight and the headlight will be switched of.

④ Assistance Level Selection

Assistance levels indicate the output power of the motor. The default value is level “0”, indicator show empty below “ASSIST”. The default power ranges from level “0” to level “5”. The output power is zero on Level “0”. Level “1” is the minimum power. Level “5” is the maximum power. To change assistance level, press the UP/DOWN to increase or decrease until the desired assistance.

⑤ Battery Indicator

The six battery bars represent the capacity of the battery. When the battery is in low voltage, battery frame will flash to notice that the battery needs to be recharged immediately.

⑥ When you pedaling your ebike (in riding) in the assistance function (PAS function), long press the DOWN button , the ebike will be in CRUISING. When you braking, the cruising is OFF.

WARNING: for safety and unnecessary injury, you should still focus on riding and keep braking at all times.

3 HANDLE BAR INSTRUCTION

■ 3.4 Charging the battery

Fully charge your battery before your first ride. The charger light will change from red to green when the battery is fully charged. Then switch off and remove the charger.



You can charge on the ebike or separate battery after removed from the tube.



**WARNING:**

Always wear a cycling helmet which meets the latest certification standards and is appropriate for the type of riding you do. Always follow the helmet manufacturer's instructions for fit, use and care of your helmet.

The process of closing .

- A.** Stop ride and keep the bike is not moving.
- B.** Turn off the switch button on the display.
- C.** Turn off the switch button under the battery box. Turn the key when you want to take out the battery box.

Warning

- A.** Keep the connection(motor and battery) is well and stable before ride.
- B.** Don't turn on/off the switch button(battery and display) when you a riding.
- C.** Keep fix well the QR of seat post and pedal are fixed.

4.1 Battery

4.1.1. Important safety notes concerning the battery**WARNING:**

To prolong battery life, store the scooter in garage to prevent low temperatures and affect the battery performance.

- Do not dismantled or dispersed the battery cells.
- Keep away the battery from children.
- Do not connect cathode and anode of charger during charging and discharge process. Prohibited to use any conductor to connect both cathode and anode. This will cause short circuit.
- Prohibited battery dip in the water.
- Prohibited placed the battery in the temperature over 60°C next to the high-temperature heat source, such as heating, etc.
- Prohibited knock on, throwing and trample the batteries, etc.
- Prohibited edge tool or nails lacerate and cut through the battery.
- If the leak occurred, electrolyte has come into the eyes, please do not rub. Wash immediately with plenty of water.
- If the battery in smell, heat, smoke, changed colors, distortion or any abnormal, stop using the battery and away from it immediately.

4.1.2. Protection

To extend the battery life and be Intelligent Use of Li-ion battery ,here are the regulations:

Firstly: Requirements on charging and discharging

- A. charge:the charger must be the assorted one . First, connect the power to the charger. second,insert the charger's out-put connector to the battery's in-put connector. Third, when the signal light is on,please pull out the battery's in-put connector first. The common single charging time is about 8-10 hours.if the battery be blow-up, the charging or discharging must be stopped.
- B. avoid over discharge: charge the battery timely after discharging, in order to avoid the over-discharge.

Secondly: Requirements on storage

- A. Lion-battery cannot be stored at the place where is over hot and over humidity. therefore the temperature of the storage should between -20 to 55degree,and further more the storage must be kept in dry,clean and the battery should not be piled up.
- B. the battery cannot be stored for a longtime without charging. The battery should be charged once a month. The battery should be stored with fully charged.

Thirdly: Maintenance

- A. When you test the voltage of the single piece of the battery-cell, you have to test the cell directly ,not by the wire. By doing that, it can avoid the voltage decline.
- B. You have to wear the gloves or clip the finger nails before you take out the single piece of the battery. So as to avoid damage the cover of the battery.
- C. Forbid bending the battery cell,the top edge of the seal-up.And also the falling , hitting and short circuit are prohibited .
- D. When you re-assemble the battery,there are some special notes we have to concerned in mind. The temperature of the electric iron should below 350°C; the welding time must be less than 3 seconds; and the frequency of welding should be no more than 5 times;the second welding must be done after cooling.

4.1.3. Precautions and Guidelines for the Battery



Reading and understanding the following points can help you properly use, maintain, and store your battery, which is very important for improving the performance of your e-bike.

WARNING: If the battery stops working, use an appropriate charger to recharge the battery, as the lithium-ion battery can be severely damaged if fully discharged. Keeping the battery charged will help to preserve it. The battery can be fully charged in approximately 8-10 hours under normal conditions.

WARNING: Improper removal, maintenance or storage of the battery may result in serious consequences. It is strictly prohibited to use the battery of your electric bicycle for other vehicles or devices, which may result in serious consequences such as fire, serious bodily injury or death.

WARNING: Never short-circuit the battery which may result in an explosion, fire, and serious harm to your health.

WARNING: Do not use the battery if it gives off an odor, generates heat, becomes discolored or deformed, or appears abnormal in any way. If the battery is in use or being recharged, remove it from the device or charger immediately and discontinue to use it.

NOTE: Do not place any objects on the battery and charger during charging as this may cause overheating and serious consequences.

CAUTION: Never charge for more than 12 hours to avoid overcharging.

WARNING: Please charge with the supplied battery. If you use other chargers, the battery may be damaged, resulting in fire, injury or death.

WARNING: Do not pierce the battery case with nails or other sharp objects. Do not crack the battery case with a hammer or step on it.

TIP: You can recharge your battery at any time. If you do not charge the battery in time, the performance and life of the battery will be influenced. The service life of the battery can be extended through proper use and maintenance, but the reduction of total capacity is inevitable.

4.1.4. Factors influencing the range

Factors influencing the range of your electric bicycle

- Life and state of charge of the battery.
- External temperatures.
- Tire pressure.
- The rider's weight.
- Riding style and choice of assistance level.
- Road/ path conditions.
- Weather conditions.
- Frequent stops and restarts.
- Cleanliness and inertness of bearings and all moving parts.

4.1.5. Range optimisation

- Fully charge the battery.
- Check tire pressure.(recommended depending on body weight, load and route profile)
- Reduce the load.
- Do not ride too fast.
- Maintain a constant speed.

4.1.6. Long Time Storage

If stored for a long time(Don't use it over three months.),the battery should be stored in a dry and cool place. The battery should be stored at a temperature of 23+ and a humidity of 45%-75%.Long-term unused batteries should be charged every 1 month.

4.1.7. Disposal of waste batteries

According to the battery law, we are obliged to inform you.Regarding the sale of batteries or the delivery of equipment containing batteries/rechargeable batteries/lamps, we are obliged to inform you of the following.

Do not dispose of your old device in the household waste!

You are legally obligated to return used batteries/rechargeable batteries/lamps as the end user. In the case of a removable battery/accumulator or illuminant, you must return them separately to the appropriate return system You can return used devices/batteries/lamps to the collection points of the public waste disposal authorities.



4 NORMAL INSTRUCTION

4.2 Charger

4.2.1. Charger function

Trouble shooting:

Should there be any difficulties with charging please check if:

- the power cable is connected properly.
- the charger plug or the battery socket is damaged.
- the battery shows any damage on the surface.
- the power socket works and whether the correct voltage is provided. (if necessary, plug in another gadget and check).

 Please use only the original charger which was supplied with the bike.

This charger is specially made for the lithium battery.

The LED light indicates the battery status as shown on the table below:

Charging cycle and LED indication for lithium battery	
LED	Mode
green	the battery is not connected
red	the batter is charging
green	the battery is charged, the charger switches off

4.2.2. Important safety notes concerning the charge

Before you first use the charger please read the following notes regarding safety carefully!

- Keep the charger away from children!
- In order to prevent any possible injury this charger should only be used for the original lithium battery which is supplied together with the bike. Any other battery is not compatible and risks to explode while charging, causing serious injury to people as well as damage to other equipment.
- Using this charger for batteries not supplied with the bike could risk catching fire, provoke electric shock and/or cause serious injury.
- Please make sure that the charger is always kept dry and does not get wet at any time.
- Should there be an incidence of contact with water or any other liquid, make sure to unplug the charger immediately from the power socket and have it inspected by a specialty dealer.
- Make sure the charge is always placed on a flat surface when in use.
- Please make sure that the charger is always unplugged and removed from the power socket when not in use.
- Before using the charger, always make sure that the plug and the cables are not damaged.
- Never connect a damaged cable or plug to the power socket.
- Never try to disassemble the charger. Wrong re-assembling could cause an electric shock and serious injury.
- Always unplug the charger before cleaning it.
- The charger should only be cleaned with a dry cloth. Never use a wet cloth, oil or any other liquid.
- Do not use an extension cable. Only use the original cable supplied with the charger.
- An extension cable might, if not 100 % compatible, catch fire or cause an electric shock.

4.3 Riding



WARNING:

Always do the Mechanical Safety Check before you get on a bike. Be thoroughly familiar with the controls of your bicycle.

Check everything!

This checklist will help make sure your bike is properly assembled and safe to ride:

Handlebars

Check your handlebars are straight and secure. To check, grip the front wheel between your legs and try to turn the handlebars.

Wheels

Make sure the front and rear mudguard stays are tight.

Ensure the quick release mechanism is properly gripping the front wheel.

Seat and post

The seat and post should be straight, fastened tightly and not exceed the max height indicator.

Pedals and chain

The pedals should be wound in and fully tightened.

Gears should engage cleanly and change smoothly.

Brakes

Test front and rear brakes whilst rolling the bike forwards – both wheels should stop completely.

Check there is more than one finger thickness between the grip and the brake lever when fully depressed.

Rack

Ensure that the rack is secure and that all bolts are tight.

Kickstand

The kickstand shouldn't wobble. Tighten if necessary.

Tires

Pump tires to very firm (impossible to deform with your thumb). PSI should be 60 for our large bikes and 50 for Compacts.

Electrics

Test both lights.

Fully charge the battery before use.

4.3.1. Before riding

Adjust the height of the handlebars and saddle to suit the rider, whose toes should be able to just touch the ground.

Check all lights and displays are working.

Check regularly to ensure that the electrical connectors between the bike and battery are clean.

Check the brakes: this can be done by putting the front brake on and pushing forwards.

Do the same with the back brakes. The bike should not move and the brake levers should not touch the handlebars. The brakes should work without having to press down too hard on the handles.

If your bike has a quick release on the front wheel check it is fully tightened and the wheel is running true. Quick release mechanisms can more easily work loose than conventional axles and so should be checked before every ride.

Make sure your clothing is suitable for riding. Long, loose or flowing garments may become caught in the wheels or chain.

Wear an approved safety helmet.

4.3.2. Riding your e-bike

After mounting the bicycle, turn on the main switch, the power display light will come on, indicating power is connected. Release the kickstand.

Placing one foot ready to pedal, **check that it is safe to proceed**, and then set off. You will feel the motor just after you begin to pedal.

As you cycle, the battery power will be used up, and the power level indicator lights will go off in turn. If the battery becomes flat, turn off the main switch and use pedals only to ride, recharge fully after journeys have accumulated over 10 miles.

Use both brakes together when stopping.

When riding in wet conditions your brakes will be less effective and a greater stopping distance is needed. In dry conditions your stopping distance should be less than 4 meters; this can increase to 15 meters on wet or snowy roads.

Never ride through deep puddles or streams. Ensure that water **never** reaches the motor and controller level.

Avoid loose or uneven surfaces, up and down keeps and watch out for unexpected pot holes.

Don't carry extra passengers or heavy loads, as this will damage the motor and battery.

Never ride under the influence of drugs or alcohol, or when feeling unwell.

Always ride with lights at night.

The minimum legal age for riding an electric bicycle in the UK is 14 years.

Please follow the Highway Code for the safety of yourself and others.

If you are new to cycling or an inexperienced rider, find a quiet place to practice and gain confidence before trying to ride on busier roads.

Buy a copy of the Highway Code; most good newsagents have it.

Bike storage and maintenance:

Don't leave the bike in the rain for long periods, or in damp conditions:

Always store in a dry place.

Don't leave the bike in direct sunlight for long periods, as this may cause some of the electrical components to overheat and result in operation failure.

Warning:

Don't tamper with, or disassemble complex electrical components.

Don't touch the bottom of the battery case with keys or other metal objects in case they damage the electrical connectors between the bike and battery.

Keep your bike clean

Use a degrease detergent, or a specialist chain-cleaning product to clean and oil your chain. A properly cared-for chain can make a bicycle more than ninety eight per cent efficient at converting kinetic energy into moving your bike forward. Juicy Bike chains are stainless steel and need very little oil. Too much oil can pick up grit and so increase wear. We recommend Green oil's, Clean Chain Degrease and a little Chain Lube.

Check tires, brakes and gears monthly

Check the tire pressure; make sure it is enough at least 40 PSI. Inch and preferably 50 (Compact) or 60 PSI. Low tire pressure will make the bike less efficient and will easily damage the tires.

Brake adjustment

Brake levers should operate the brakes easily with only a small amount of travel at the handlebars. If there is not enough room for two fingers between the lever and the handlebars then adjustment is essential. See how to adjust above.

4

NORMAL INSTRUCTION

Chain adjustment

The chain may become looser after a long period of use and can only be adjusted by removing links, which is best carried out at a bike repair shop.

If you are unsure about brake, gears or chain adjustment, take the bike to be serviced at your local cycle shop.

■ **4.4 Warranty**

This warranty is extended only to the initial consumer purchaser and is based on normal use.

Main parts have a warranty of one year. This covers mechanical and electrical parts: including frame, display, PAS, motor, controller, battery and charger.

The warranty is subject to proper care for and reasonable use of the bikes. Lights, brake pads, inner tubes, tires, chain, cables, seat etc. are regarded as consumables.

CONDITIONS OF WARRANTY

1. Your bicycle has been designed for general transportation and recreational use, but has not been designed to withstand abuse associated with stunting and jumping. This warranty ceases when you rent, sell, or give away the bicycle, ride with more than one person, or use the bicycle for stunting or jumping.
2. This warranty does not cover ordinary wear and tear or anything you break accidentally or deliberately.
3. This warranty does not cover normal wear and tear, improper assembly or maintenance, or installation of parts or accessories not originally intended or compatible with the bicycle as sold. The warranty does not apply to damage or failure due to accident, abuse, misuse, neglect, or theft. Claims involving these issues will not be honored.
4. It is the responsibility of the individual consumer purchaser to assure that all parts included in the factory-sealed carton are properly installed, all functional parts are initially adjusted properly, and subsequent normal maintenance services and adjustments necessary to keep the bicycle in good operating condition are properly made.
5. This warranty does not apply to damage due to improper installation of parts, installation of any kind of power plant or internal combustion engine, modification or alteration of the brakes, drive train, or frame in any way, or failure to properly maintain or adjust the bicycle.

NOTICE: Bicycle specifications subject to change without notice.

If you are unhappy with your purchase, as long as you contact us within 30 days of the receipt of the item, we will process your return/exchange request. Any request after 30 days will not be honored.

Please make sure to contact us by email support@mooncool.com at first.

■ **4.5 Return & Exchange**

Items returned without authorization will not be accepted.

Items must be returned within 30 days after you receive them.

All items must be in the same condition that you received them, unworn or unused, with tags, and in their original packaging. You'll also need the receipt or proof of purchase.

When returning or exchanging items, customers must use a shipping method providing tracking information.

Non-returnable items:

On-sale items are non-refundable.

Damage/Lost caused by customers is non-refundable.

4

NORMAL INSTRUCTION

General Return Process

Initiate a return: Please email us at support@mooncool.com with photos and/or videos of the items and let us know your order number. Our customer service staff will determine the eligibility for your return request within 3 business days.

Ship the item back: If your return is accepted, we'll send you the return address, as well as instructions on how and where to send your package. (Note: Items returned without authorization will not be accepted). We recommend that you send your return/exchange in a shipping method providing tracking information as well as a signature because we will not be responsible for lost return/exchange.

Refund or exchange: when we receive your return/exchange, we will inspect the item in 3-5 working days and then provide a replacement for an exchange or issue a refund.

Return Charge

If the return is due to our problems (such as incorrect products, or quality problems of products), we will provide a full refund for you;

If the return is due to the buyer's problem (such as: don't like/wanting the item or ordering the wrong product/size), the buyer should pay the freight.

No restocking fee is to be charged to the consumers for the return of a product.

Refunds

Once your return is received and inspected, we will notify you of the approval or rejection of your refund. If you are approved, the refund will be provided to the original method of payment within 2-3 working days.

If you haven't received the refund within 2-3 working days, please check your bank account again. Then contact your bank or credit card company. It may take some time before a refund is officially posted. If you've done all of this and you still have not received your refund, please contact us at support@mooncool.com.

Please Note: we do not refund our original shipping cost.

Please provide the following information before make the call or email.

Frame Serial Number:

Order Number:

(Motor/Battery/Controller)Number:

Question videos and photos is necessary.

Your bike's unique Frame Serial Number is like a fingerprint, identifying the bike in the event that it is lost, stolen, or damaged.

The serial number is required for most insurance policies and claims and to identify lost or stolen bikes.

Your bike has its serial number engraved on the frame:

1. on the front of the head tube (near the headlight)
2. or on the bottom of the Bearing Bracket Tube (near the pedals)

Please record your Serial Number before your first ride and have your Order Number ready when contacting Support.

ANY QUESTIONS, PLEASE CONTACT US BY EMAIL: support@mooncool.com or VISIT OUR WEBSITE: moocool.com

5

TROUBLESHOOTING

Basic Troubleshooting

Symptoms	Possible Causes	Most Common Solutions
The bike does not work.	<ol style="list-style-type: none">1. Insufficient battery power and faulty connections.2. Battery not fully seated in the tray.3. Improper sequence to turn on.4. Brakes are applied.5. Blown discharge fuse.	<ol style="list-style-type: none">1. Charge the battery.2. Clean and repair the connectors.3. Install battery correctly.4. Turn on the e-bike in proper sequence.5. Disengage brakes.6. Replace discharge fuse.
Irregular acceleration and/or reduced top speed.	<ol style="list-style-type: none">1. Insufficient battery power.2. Loose or damaged acceleration handle.	<ol style="list-style-type: none">1. Charge or replace the battery.2. Replace the acceleration handle.
The motor does not respond when the bike is powered on.	<ol style="list-style-type: none">1. Loose wiring.2. Loose or damaged acceleration handle.3. Loose or damaged motor plug wire.4. Damaged motor.	<ol style="list-style-type: none">1. Repair and/or reconnect.2. Tighten or replace.3. Secure or replace.4. Repair or replace.
Reduced range.	<ol style="list-style-type: none">1. Low tire pressure.2. Low or faulty battery.3. Driving with too many hills, headwind, braking, and/or excessive load.4. Battery discharged for a long period of time without regular charges, aged, damaged, or unbalanced.5. Brakes rubbing.	<ol style="list-style-type: none">1. Adjust tire pressure.2. Check the connections or charge the battery.3. Assist with pedals or adjust the route.4. Balance the battery; contact mechanic if reduced range persists.5. Adjust the brakes.
The battery can not be charged.	<ol style="list-style-type: none">1. Charger not well connected.2. Charger damaged.3. Battery damaged.4. Wiring damaged.5. Blown charge fuse.	<ol style="list-style-type: none">1. Adjust the connections.2. Replace.3. Replace.4. Repair or replace.5. Replace charge fuse.
The wheels or motor make strange noises.	<ol style="list-style-type: none">1. Loose or damaged wheel spokes or rim.2. Loose or damaged motor wiring.	<ol style="list-style-type: none">1. Tighten, repair, or replace.2. Reconnect or replace the motor.

5

TROUBLESHOOTING

Other troubleshooting

Problem	Possible Cause	Remedy
Gear shifts not working properly	<ul style="list-style-type: none"> • Derailleur cables sticking/stretched/ damaged • Front or rear derailleur not adjusted properly • Indexed shifting not adjusted properly 	<ul style="list-style-type: none"> • Lubricate/tighten/replace cables • Adjust derailleurs • Adjust indexing
Slipping chain	<ul style="list-style-type: none"> • Excessively worn/chipped chain wheel or freewheel sprocket teeth • Chain worn/stretched • Stiff link in chain • Non compatible chain/chain wheel freewheel 	<ul style="list-style-type: none"> • Replace chain wheel, sprockets and chain • Replace chain • Lubricate or replace link • Seek advice at a bicycle shop
Chain jumping off freewheel sprocket or chain wheel	<ul style="list-style-type: none"> • Chain wheel out of true • Chain wheel loose • Chain wheel teeth bent or broken • Rear or front derailleur side-to-side travel out of adjustment • Cross chaining and shifting under load 	<ul style="list-style-type: none"> • Re-true if possible, or replace • Tighten mounting bolts • Repair or replace chain wheel/set • Adjust derailleur travel
Constant clicking noises when pedaling	<ul style="list-style-type: none"> • Stiff chain link • Loose pedal axle/bearing • Loose bottom bracket axle/bearings • Bent bottom bracket or pedal axle • Loose crankset 	<ul style="list-style-type: none"> • Lubricate chain/adjust chain link • Adjust bearings/axle nut • Adjust bottom bracket • Replace bottom bracket axle or pedals • Tighten crank bolts
Grinding noise when pedaling	<ul style="list-style-type: none"> • Pedal bearings too tight • Bottom bracket bearings too tight • Chain fouling derailleurs • Derailleur jockey wheels dirty/binding 	<ul style="list-style-type: none"> • Adjust bearings • Adjust bearings • Adjust chain line • Clean and lubricate jockey wheels

Problem	Possible Cause	Remedy
Freewheel does not rotate	<ul style="list-style-type: none"> • Freewheel internal pawl pins are jammed 	<ul style="list-style-type: none"> • Lubricate. If problem persists, replace freewheel
Brakes not working effectively	<ul style="list-style-type: none"> • Brake pads worn down • Brake pads greasy, wet or dirty • Brake cables are binding/stretched/damaged • Brake levers are binding • Brakes out of adjustment 	<ul style="list-style-type: none"> • Replace brake pads • Clean pads • Clean/adjust/replace cables • Adjust brake levers • Center brakes
When applying the brakes they squeal/squeak	<ul style="list-style-type: none"> • Brake pads worn down • Brake pads toe-in incorrect • Brake pads/rim dirty or wet • Brake arms loose 	<ul style="list-style-type: none"> • Replace pads • Correct pads toe-in • Clean pads and rim • Tighten mounting bolts
Knocking or shuddering when applying brakes	<ul style="list-style-type: none"> • Bulge in the rim or rim out of true • Brake mounting bolts loose • Brakes out of adjustment • Fork loose in head tube 	<ul style="list-style-type: none"> • True wheel or take to a bike shop for repair • Tighten bolts • Center brakes and/or adjust brake pads toe-in • Tighten headset
Wobbling wheel	<ul style="list-style-type: none"> • Axle broken • Wheel out of true • Hub comes loose • Headset binding • Hub bearings collapsed • Quick-release mechanism loose 	<ul style="list-style-type: none"> • Replace axle • True wheel • Adjust hub bearings • Adjust headset • Replace bearings • Adjust quick-release mechanism
Steering not accurate	<ul style="list-style-type: none"> • Wheels not aligned in frame • Headset loose or binding • Front forks or frame bent 	<ul style="list-style-type: none"> • Align wheels correctly • Adjust/tighten headset • Take bike to a bike shop for possible frame realignment
Frequent punctures	<ul style="list-style-type: none"> • Inner tube old or faulty • Tire tread/casing worn • Tire unsuited to rim • Tire not checked after previous puncture • Tire pressure too low • Spoke protruding into rim 	<ul style="list-style-type: none"> • Replace inner tube • Replace tire • Replace with correct tire • Remove sharp object embedded in tire • Correct tire pressure • File down spoke

6

DATA SHEET

Main parameters of vehicle

Maximum speed:	15MPH or 25KM/H
Maximum permissible load:	150kg

Main battery parameters

Battery type:	Lithium-ion
Nominal voltage:	48V
Nominal Capacity:	20AH

Main parameters of the motor

Dual wheel hub motor	
Power:	750W
Voltage:	48V

Controller parameters

Undervoltage protection value:	41V \pm 0.5
Overvoltage protection value:	20A

Battery charger

Input voltage:	AC 110-240V 50/60Hz 2A
Output voltage:	54.6V DC
Output current:	2A