

DIY Electric bike conversion Kits

User Manual



Please read the user manual carefully before starting the conversion process.
Please convert the bicycle on the basis of full understanding of the manual.

Before putting the device into operation, make sure that the connectors from the controller to the motor are plugged together to the marking.



Brief Introduction

To convert a bicycle is a rewarding project, but caution is advised. Customers converting their own bike are responsible for the safe operation and installation of the kit.

Please kindly read the user manual carefully before starting the conversion. We disclaim any responsibility injury, damage or other consequences arising from the use of this product.

User Precautions

We want have a fun ride, but also safe one, please read following information thoroughly, even if you are an experienced rider, take the opportunity to familiarize yourself with this conversion

- Read all of the enclosed installation and operating instructions and follow the instructions, prior to its first use
- The e-bike kit has lots of electric parts, do not dismantle the parts, let them fall down or punctured them
- The electric parts are fine in the rain but should NEVER be submerged in liquid;
- Storage temperature of lithium ion battery is -20~+60 °C
- **Batteries should be charged immediately after every use and never stored for long periods of time without maintenance charging, if you have to store for a long period of time, please remember to charge it once at least every two months**
- The bike should be checked carefully after long time idle
- Spoke Tension should be checked after 100km and adjusted where necessary
- Make sure the tires have proper pressure before riding
- Make sure the brakes are operating properly before riding
- Always wear a helmet when riding an electric bicycle for your own safety
- Adhere to all valid traffic regulations
- Keep in mind that other traffic participants may underestimate the speed of an electric bicycle.
- Ride with both hands on the handlebars when riding your electric bicycle.

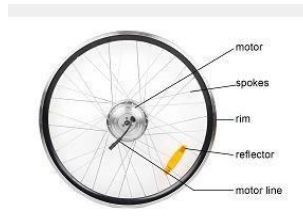
Parts Introduction

When you open the carton, please find the components as below, please read it carefully.

1. Hand-Built motor wheel



V-disc brake motor wheel



Disc brake motor wheel

Whatever what kinds of motor you received, this installation step is similar, please refer for installation step, the installation steps will short of as below.

2. Battery & Charger



Tube



Rear pack



Rear pack



Seat Post



New tube



Column



Lead acid



Charger

3. Controller



Normal controllers



Complete waterproof controller



Tube battery controller



New tube battery controller

4. Brake levels



Economic brake levels



Water-proof plug brake levels

5. Throttles



Thumb throttle—normal



Thumb throttle—waterproof



Twist throttle—normal

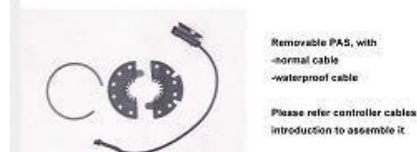


Twist throttle—waterproof

6. PAS (pedal assisted system)



Normal PAS



Removable PAS

7. Display



LED display



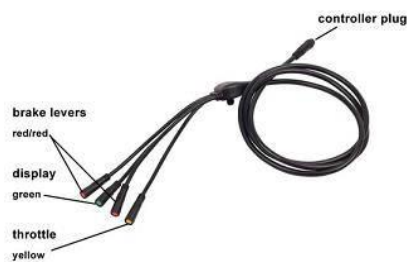
LCD display

8. Removable motor lines



Some motor lines are not removable, please pay attention when you refer packing list.

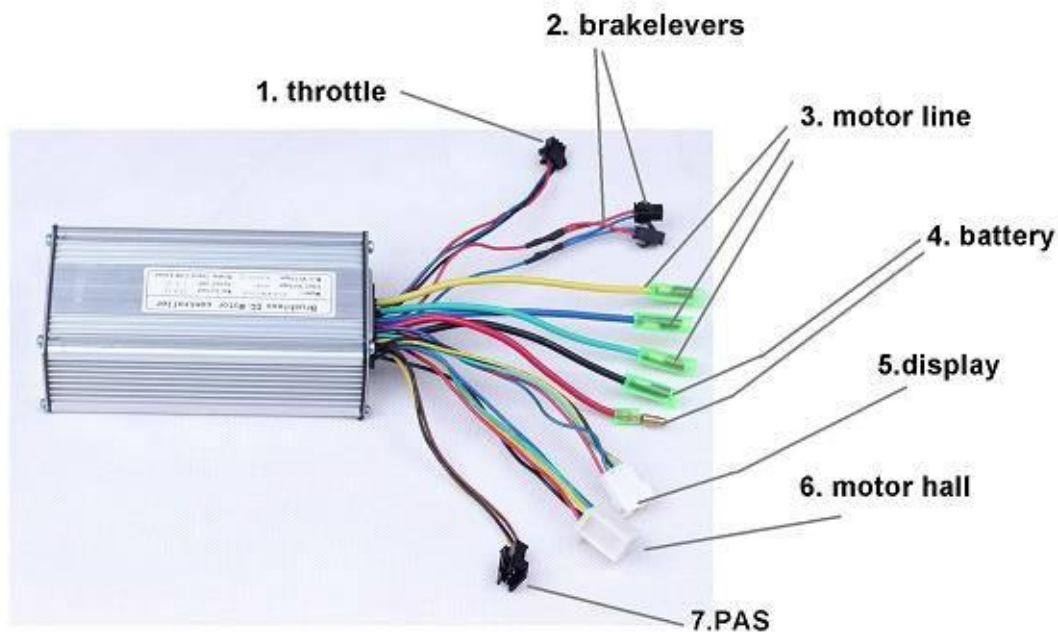
9. One cable system



When you assemble, please notice the corresponding plug colors.

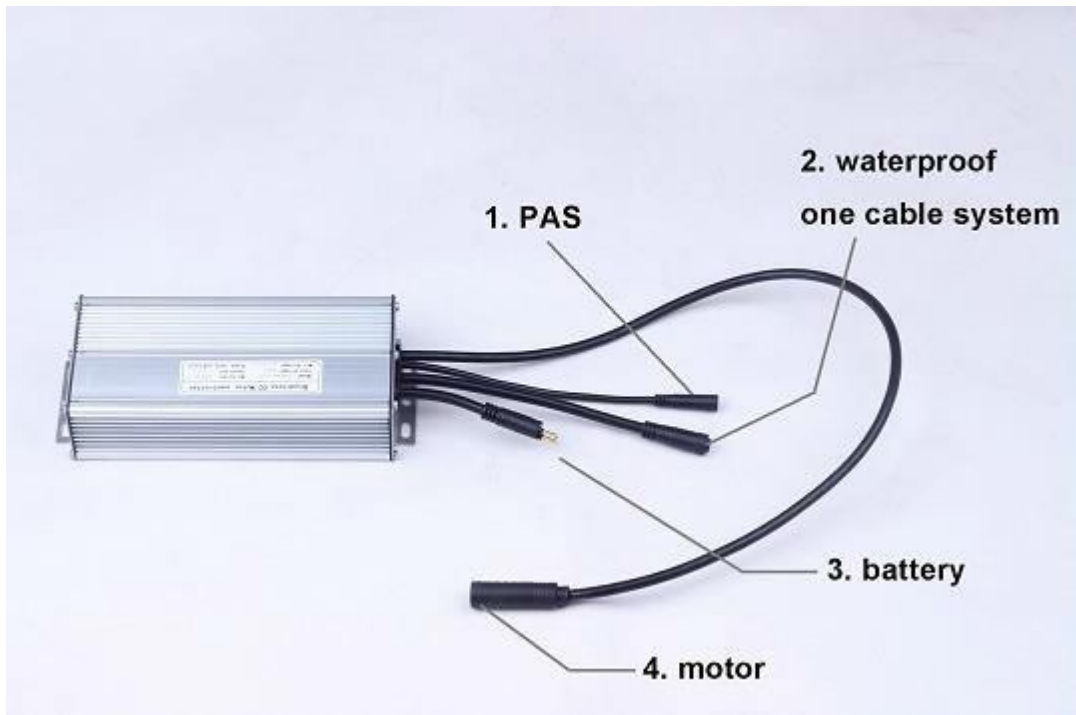
Installation Guide

Controller cables introduction



- All controllers with normal cables; please refer this diagram, no matter the controller shape.

Please notice the cable colors must mirror same colors.



- All controllers with complete waterproof cables please refer this diagram, no matter what controller shape is, please notice the cable colors must mirror same colors.

CAUTION:

If the controller you received is different with above two, when you install the other components, please notice the cables of controller and electronic parts should be same, generally the cables and its colors could match with electronic parts.

Tools

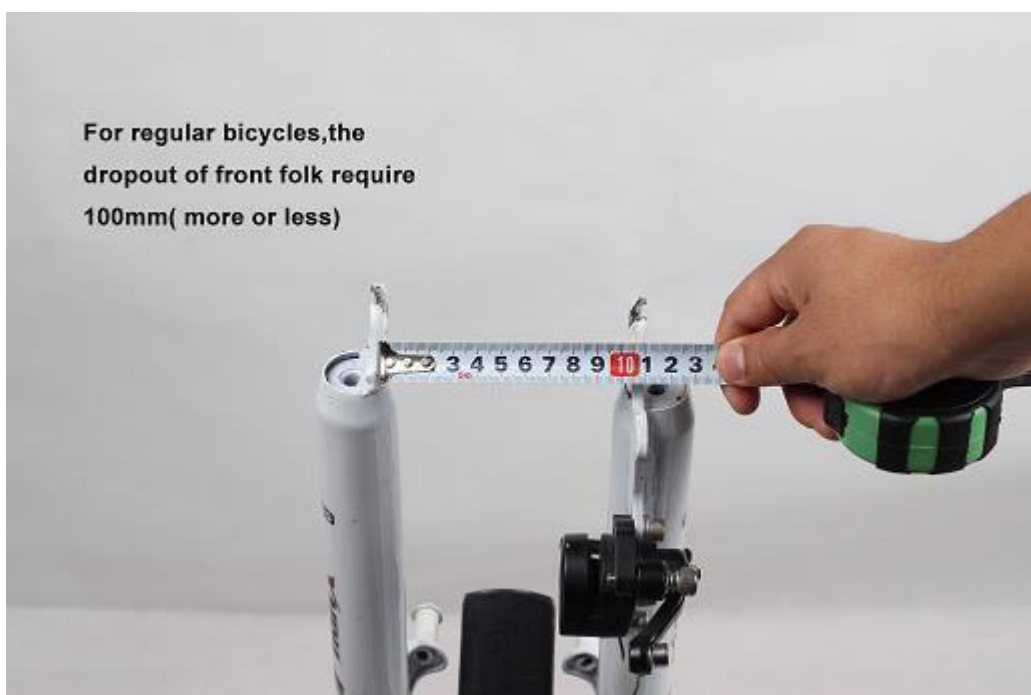


You are able to use similar tools or you could buy from local dealer.

Step 1: Make sure your bike is suitable for conversion

Our e-bike kit is universal and can be used to convert most conversional bicycles, however there are criteria which must be met first.

Your front forks and rear dropouts must be wide enough to accept hub motor. Front fork dropout MUST BE at least 98-102mm for regular bicycles



Rear conversions REQUIRED 133-137mm at least for regular bicycles



Brompton bicycle's front fork dropout is 80mm.
Please order special motors to convert Brompton bicycle.

The opening on the fork or rear frame MUST BE suitable to fit hub motor axles, too wide is not acceptable.

★ generally the diameter of motor axle is 10mm.

Step 2 Transfer your tire & tube & Install the motor wheel:

You will need to transfer your existing tire and tube or a new tire and tube to hand-built motor wheel.

Front motor wheel (disk or caliper)

1. take out the original bicycle wheel and release the caliper



2. Dismantle the original disc and install it on the motor wheel.

When tight the screws of disc, please tight them in diagonal direction and do not tight too much, or the screws will slip the teeth, because the motor cover is in aluminum material.

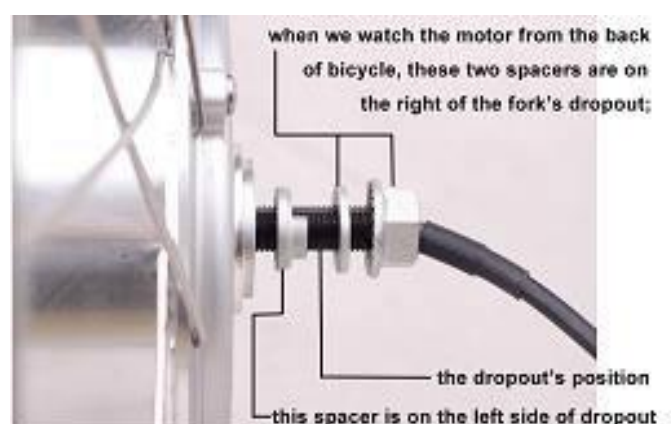
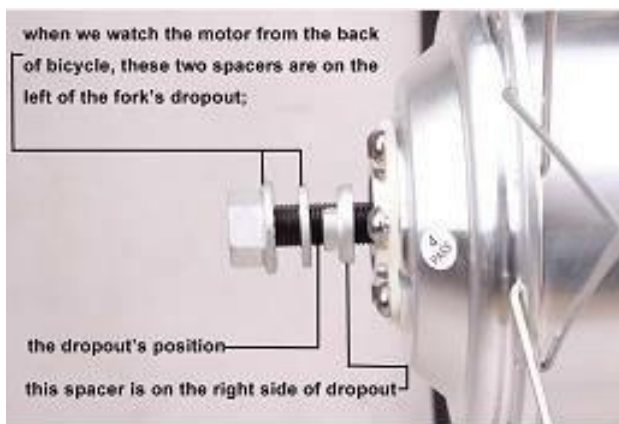


3. fit the spacers close to motor

★ Spacers quantities depend on your bicycle



4. fit the spacers on the axle and insert the motor wheel



5. tight in all screws



6. adjust caliper to suitable location and tighten the screws



Rear disc/V brake motor

1. Take out the original real bicycle wheel from the bike



2. Install the brake disc and freewheel on the motor (when tightening the screws on the disc, tighten them diagonally)



3. Install the motor wheel and tight it.

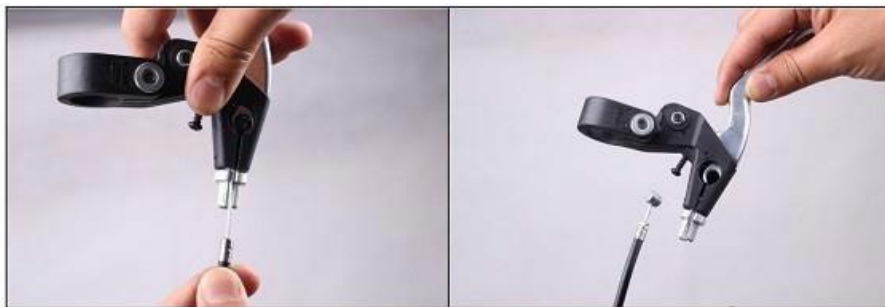


Step 3 Install display

1. release the screws on the back of the display and fit it on the handle bar
2. adjust the display location and tighten the screws

Step 4 Install the brake levers & throttle & handle bars

1. take out the original brake levers and grips (left & right)



2. insert the brake lines to new electric brake levers



3. fit the electric brake levers on the bike and tight the screws (left & right)



4. fit the throttle (generally right side)

5. 5. fit the new grips (left & right; you may need to warm the grips if they are hard to fit)



Step 5 Install PAS (pedal assist sensor)

A Normal PAS (you need to use specific bicycle tools to take out the crank set and axis, the normal PAS is installed inside the crank set)



1. Undo the crank set and arm



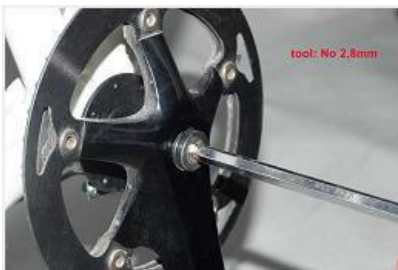
2. Take out the arm of the other side and its axle



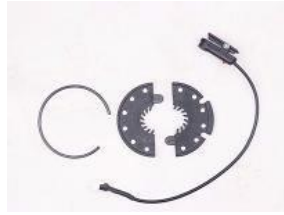
3. Fit the mental sensor on the axle, and fit back onto the bicycle, fit disc plate (please notice the direction of mental sensor and disc plate must be congruent with these images. The sensor must be close to disc plate, 1~3mm)



4. Fit the crank set and arm, tighten the sensor cable on the bicycle.



Removable PAS, installed on the left side of the bicycle, crank arm removal not required.



1. Fit the disc on the crank axle:



2. Apply the adhesive sensor to the frame, please notice it should close to disc, or PAS will not work.



Step 6 Install battery and controller

Tube battery

1. remove the bottle cage on the bicycle



2. insert the bracket of tub battery, tight the screws (may look different to photo)

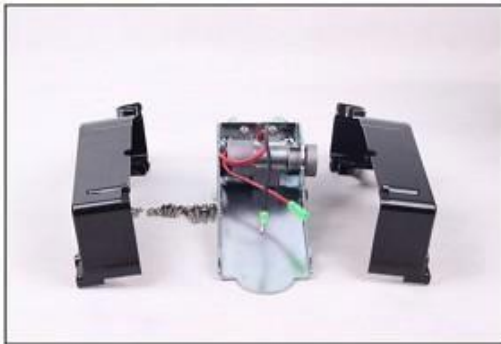


3. fit the tube battery, lock it and turn off the battery switch (please refer assembly batteries chapter)
4. connect all electronic lines with controller (please refer controller introduction)

Seat post battery

1. dismantle the controller box

Please carefully keep these screws, they are a specialized kind and costly to replace.



2. Apply the rubber around the opening hole of controller box, insert the saddle seat stem, adjust the box location and tighten the screws;



3. connect all electronic cables with controller (please refer controller introduction)
4. put the controller into the box, reassemble the box



5. Insert the seat post battery



Rear pack battery

1. take out the existing rear pack, please go No 2 if this is not existing



2. check the rear battery is complete



3. fit the rear rack onto the bicycle, adjust and tighten the screws



4. insert the battery into the pack, lock the battery



5. connect all electronics with the controller



6. put the controller into the box, assemble the box.



Step 7 Make final adjustments & Enjoy

Make sure the brakes are adjusted, the wheel is secure, screws are tighten, everything is functioning as expected, you need to twist the throttle to test the hub motor with the motor wheel lifted off the ground, if anything is not working properly please recheck all of the step of assembly and contact the distributors for help.

Now you are ready to have fun riding, be careful and take it slow until you get feel of your e-bike.

Take time to learn your new e-bike and how it handles now that is motorized.

Ride a few km's and stop to check everything over again.

Be 100% sure that the wheel is secure and nothing has come loose.

You should inspect your e-bike and components regularly to ensure all connectors are secure, especially the controller and battery connectors.

Before putting the device into operation, make sure that the connectors from the controller to the motor are plugged together to the marking.



Charging

Charging plug - to connect local power Charging port - to connect battery

1. Insert charging port on battery first, then insert charging plug to mains socket
2. The charging signal is red during charging, it turns to green after full charging
3. Photos of charging plug & charging port please refer battery introductions



Load/Unload the batteries

1. Please turn the keys left/right to lock or unlock the batteries



2. The keys have two functions: to lock the battery and ignite the power (for some units, not others).



3. Lead acid could take out the battery socket directly.



Maintenance

We recommend to have the spoke tension of the motor wheel and the torque of all screws checked by a qualified dealer after the first 50km.

In order to ensure extended use of the propulsion system, all plug-in contacts of the system should be checked every two to three months and cleaned with a soft and dry brush, if necessary.

It must be ensured that no dirt or humidity penetrates the battery docking station when the battery is removed.

Cleaning

CAUTION:

Never use a high pressure washer or a garden hose to clean the propulsion system. The force of a water jet could damage the electrical components of the propulsion system.

We recommend a soft sponge or a soft brush to clean the bicycle.

Use a moist rag to clean the battery docking station.

Always use very little water, and keep water away from the electrical contacts.

Check the plug-in connections for moisture after cleaning and let these dry, if necessary, before using the bicycle.