

8FUN 36V / 250W e-Bike Conversion Kit Installation Instruction (For New 3692 Battery)

Revised: October 2012

Before you begin

Thank you for purchasing 8FUN 36V / 250W e-bike conversion kit.

Whether your decision to purchase this e-bike kit was for fun or for environmental reasons, or both, you will not be disappointed with the kits performance or durability.

At the heart of the 8FUN electric bike conversion kit is a 8FUN 36V / 250W permanent magnet brushless electric hub motor and its intelligent controller.

The 8FUN motor works without chains, belts, gears or brushes to maintain or replace, in fact the motor is completely maintenance free! In addition to being maintenance free, a 8Fun brushless motor is one of the most energy efficient motors in use today.

For your 8FUN motor to work properly it must be connected to a special controller. The controller in your kit is the small silver box with all the wires coming out of it, this is the brain of your 8FUN e-bike conversion kit. It senses the position of the throttle, receives signals from the motor and determines the power pulses to send to the motor to make it turn. The controller allows you to control your speed (via the throttle) and gives smooth acceleration without pulsing or jitter and it is completely silent as is the motor.

The 8FUN motor is in fact so quiet we highly suggest installing a bell or horn to warn other bicyclists before you fly past them at high velocity!

Before starting the installation procedure, please read this manual in its entirety and follow all suggested safety precautions.

Safety Considerations

1. Never short out the battery or charger leads or terminals.
2. Obey all regional traffic laws that apply.
3. Wear a helmet at all times when riding any moving vehicle.
4. When charging batteries keep away from all flames.
5. Do not overload the motor and controller, do not activate the throttle when stopping.
6. Install a horn or other signaling device and use it when approaching pedestrians or other bicyclists.
7. Disconnect batteries before performing any maintenance or assembly work.
8. Dispose of batteries in accordance to local laws.

Disclaimer

The 8FUN electric bike conversion kit is supplied as a set of DIY parts for the user to install on their bicycle. Because this kit is installed, maintained and operated by the purchaser, 8Fun Ltd disclaims any responsibility for injury, damage or other consequences arising from the use of this product.

Each installation will be different and therefore it is the responsibility of the purchaser to determine the best way to install the kit on their particular bicycle. The following instructions should be considered as general guidelines only - your installation will be slightly different.

If you do not have the mechanical ability to correctly and safely install this kit, you should obtain the services of a professional bicycle shop or other qualified technician. Installation and use of this kit will create a vehicle that has exposed moving parts, electrical connections and high powered batteries. Any or all of these components can be dangerous.

UK Law mandates that no person under the age of 16 shall operate a motorized bicycle. Always wear a helmet, ride responsibly and observe all Local laws.

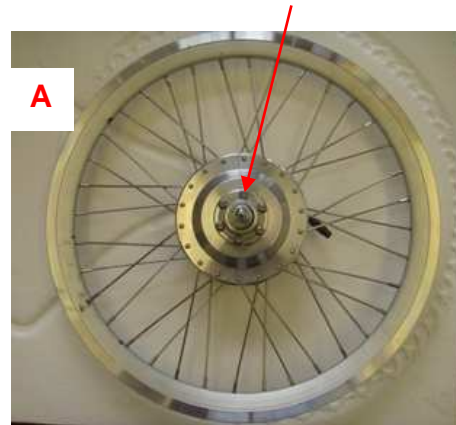
e-Bike Conversion Kit Box Contents

- A. 1 x 8FUN 36V/250W Hand-Built Wheel / Double-Walled Rim and Electric Brushless Hub Motor
- B. 1 x 36V / 9Ah Bike Li Battery and Rack and Lock
- C. 1 x 36V Li Battery Charger
- D. 1 x 36V / 13Amp Intelligent Controller and box
- E. 1 x 3 Speed Control Panel - Limits Throttle to 30%, 60% or 100% of Full Power
- F. 1 x Electric Thumb Throttle
- G. 2 x brake levers or Power Cut-off Brake Sensors (If comes)
- H. 1 x Pedelec Sensor 5 or 12 magnetic dots
- I. 1 x 26" Tyre and Inner Tube

Attention: Your 8FUN Motor can fit your disc brake



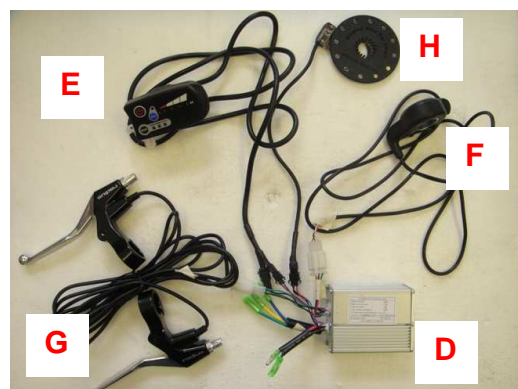
Whole Package of 8Fun e-Bike kit



A. 8Fun 36V/250W Brushless Motor



B&C. 36V / 9Ah Li Battery and Rack



D-G. Controller / Thumb Throttle / Control Panel / Pedelec Sensor / Brake levers or Brake power cut-off sensors

Installation Guide

Necessary Tools for Installation of your 8FUN e-Bike conversion kit

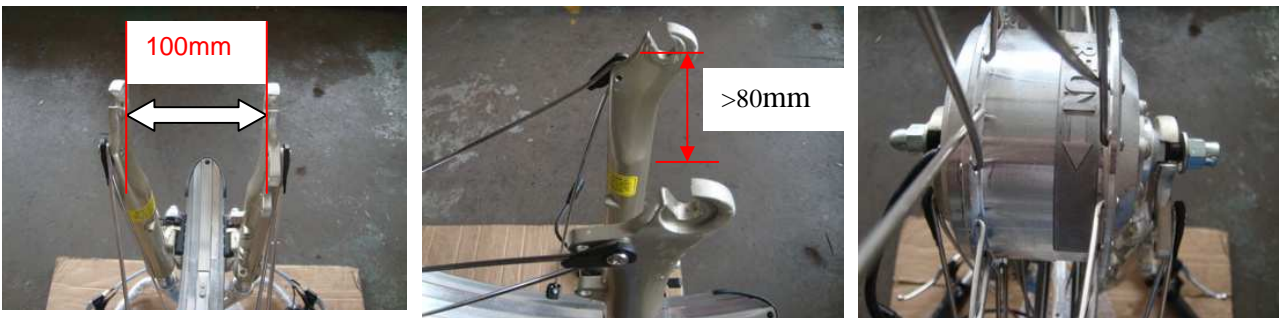
1. At least 6pcs of cable tie (For holding wires firmly to your bicycle frame)
2. 3pcs of Allen Wrench with diameters of 2.5mm, 3.0mm, 6.0mm respectively
3. 1pc of Adjustable wrench
4. 1pc of Philip Screwdriver
5. Crank Tool

Step 1 - Make Sure Your Bike is Suitable for Conversion

The 8Fun electric bike conversion system is universal and can be used to convert most conventional bicycles. However, there are a few criteria which must be met first.

Your front forks or rear dropouts need to be wide enough to accept the hub motor.

*Front forks MUST be at least 100mm at the dropouts (where the axle fits into the forks).
Rear conversions require 135mm of space between the rear dropouts (this is standard for most bicycles)*



If your bike has a rear suspension or can't install a rear rack, you'll need another type battery for 8FUN conversion Kits, more products, please check our website:

www.8funbike.com .

Step 2 - Install the Hub Motor Wheel

Take the 8Fun hub motor wheel and place it between the forks to make sure it fits correctly. After making sure it fits you can secure the rim in place. Make sure you secure the bolts tightly and secure both torque washers to keep the motor from spinning within the fork. *If you apply power and the axle is not secured tightly, the motor will try to turn inside the dropouts, permanently damaging the wires connecting the motor.*

Torque washers should always be used. Tighten axle bolts and secure torque washers. Inflate the tire, secure the brakes and flip the bike back over. Re-install and adjust the brakes. Odds are good that the new rim and old rim are not 100% the same, so adjust the brake pads so that they engage the rim with full contact. Adjust the cable for enough free play to keep the shoes off the wheel during rotation. Electric bikes require more attention and care to brakes since you will normally be riding at higher speeds..



Two Torque Washers



8Fun 36V/250W Intelligent Brushless Hub Motor

Step 3 - Install the Throttle and Power Cut-off Brake Levers and Control Panel

Next remove the grips from the handle bars to install the thumb throttle / the right brake lever on the right and install the control panel and the left brake lever on the left side of handlebar. You will need to remove your right and left grips, slide the thumb throttle and brake levers (if comes) and control panel onto the handlebar, slide your handle grips back into place and then secure the thumb throttle and brake levers and control panel with the hex wrench.



Thumb Throttle



Power cut-off brake levers



Control Panel



Control Panel and Left Brake



Thumb Throttle and right brake

Step 4 – Install Pedelec Movement Sensor and Brake power cut-off Sensors

PAS (Pedal Assistance System) is known as pedelec sensor. It is a required part of an electric vehicle in European countries. The system controls the power of electricity supplied to the motor, i.e. the faster you pedal, the faster the motor runs.



1. Use special tool to take the right crank arm out from the axle;
2. Take out the axle bearing seal piece, put in the pedelec sensor (attached the cable), see below picture B, then put back the the axle bearing seal piece and secure the sensor,
3. Install the black disc with 5 or 12 magnetic dots, the work side (SM letters on this side) should face to the sensor and watch the arrows on the disc as below pictures.



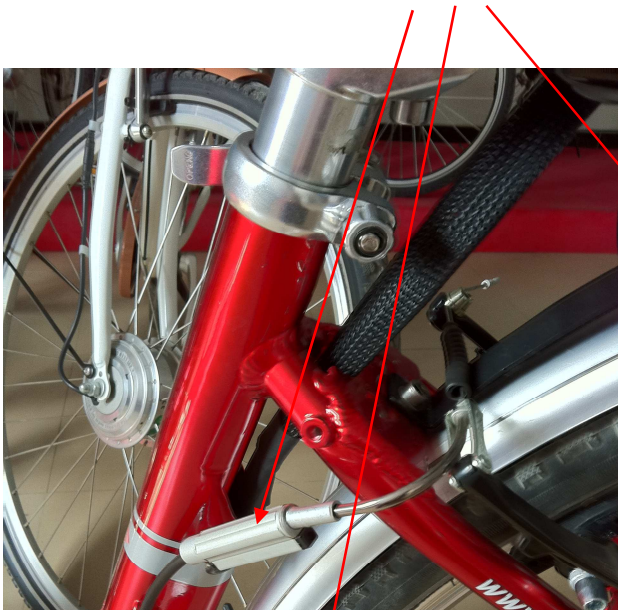


安装好的界面



磁片与感应头距

Install Brake power cut-off Sensors (If comes), please see below pictures



The above are for V-type brakes



安装时特别注意线管长度，刹车把与刹车夹器要有回弹力。

This is for Disc Brakes

Step 5 -- Run the Wiring

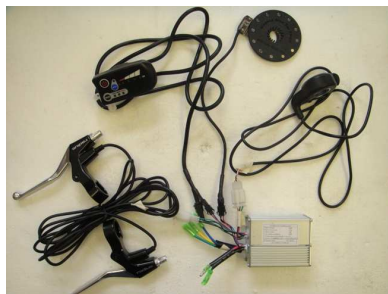
For a clean install, route all of the wires toward the back of the bike and secure the wires with zip ties. Make sure you have full range of motion with the handlebars when tying back the wires and leave some slack at each zip tie.

Step 6 - Connect the Electronics

Before you connect the wires to the controller, make sure switch off the battery.

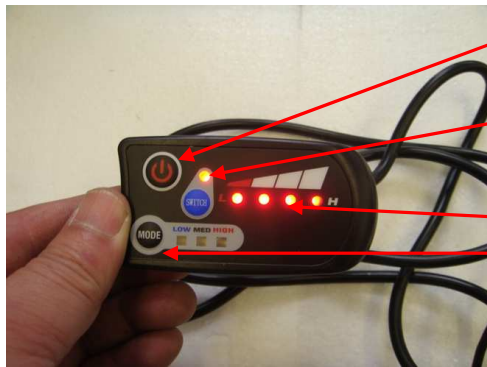
Connect the wires from the motor, control panel, pedelec sensor, brakes and throttle to the controller.

The connectors from each component will only fit to the correct mate on the controller. Please consult the wiring diagram for further clarification. When all connections are correctly and securely attached, plug your battery into the controller.



Controller Connections: *(connections may differ with the below, but you won't make mistakes, as there are all unique)*

1. 3 pin White Female connect to Thumb Throttle
2. 2 pin White Male connect to Brake levers
3. 3 pin Black Female connect to Pedelec sensor
4. 2 pin Black Female and 2 pin Black Male connect to Control Panel
5. Yellow / Green / Blue Female cables connect to 8FUN motor
6. Red (+) Male / Black (-) Female connect to Battery (+) / (-)



Power on / off

Switch on, light on – Throttle only
 Switch off, light off – Pedal assistance only

Battery power display

Pedal assistance 3 speeds control

Control Panel: 3 function modes and 3 speeds



Step 7 – Put the controller into the battery box

After you connected all the wires to the controller, put the controller into the box attached with the battery. Make sure the battery switch off.



Step 8 - Install the Rear Rack & Lock Your Battery

It is a little different for each bike, but generally when installing a rear rack you'll secure it on the frame. Make sure your battery is secure and snug so it will not move when riding.

Maybe you need drill four holes on the frame to secure the battery rack.

Attach the rear rack on the frame

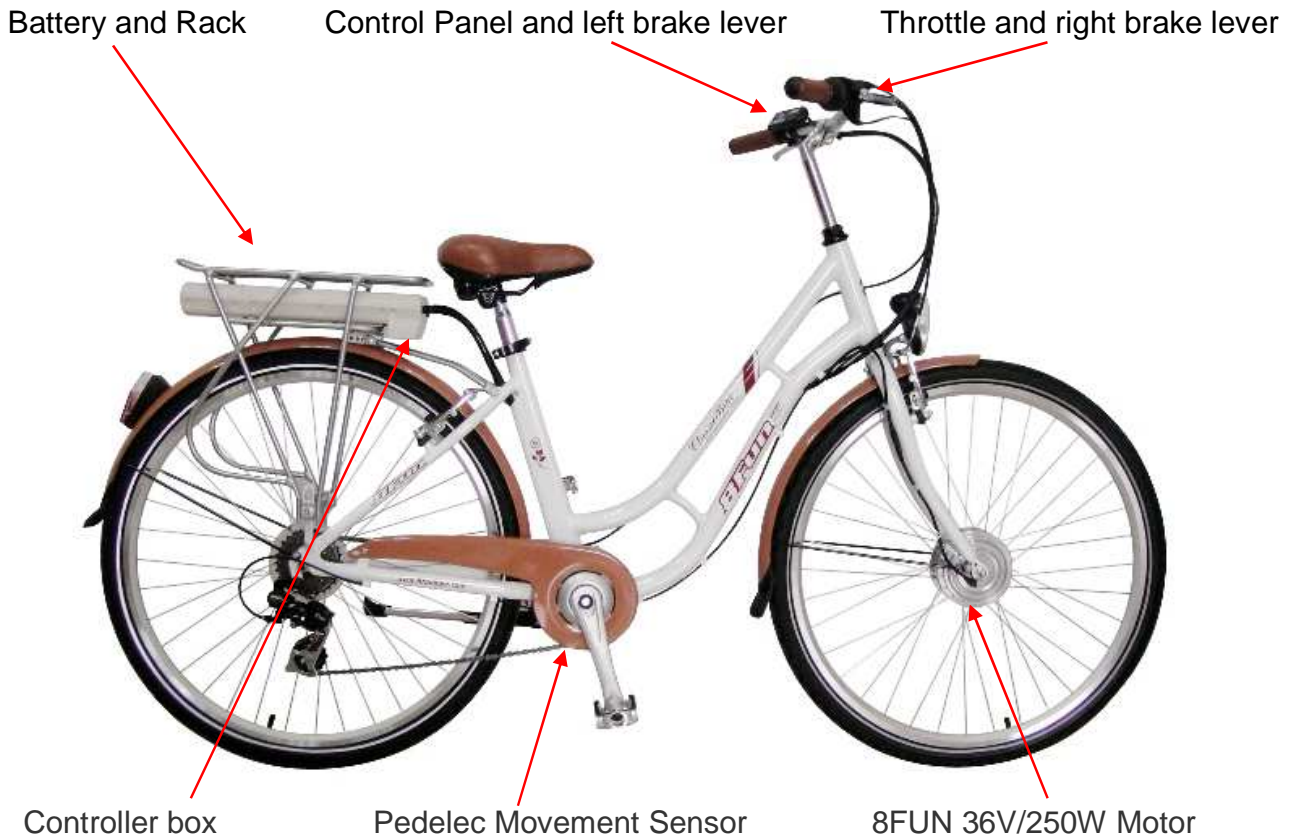


Step 9 - Make Final Adjustments & Enjoy

Make sure the brakes are placed and tightened to your comfort level.

Finally, make sure the brakes are adjusted, gears are tuned and everything is ready to go. That's it! Now you're ready to ride. Be careful and take it slow until you get the feel. Ride for a few miles and then come back to check everything over. Give the bolts a good tightening one more time. You should check all the components often to make sure all connections are secure, especially near the hub and at the motor.

Your 8FUN e-Bike



8FUN 36V / 250W e-Bike Conversion Kit:

Kit Net Weight: 9 kg

Battery Charge Time: 3 – 4 Hours

Range: 15 – 30 Miles (Depends on the weight of rider and road conditions)

Electric Bicycle Maintenance Schedule

Specifically for Bikes Converted with the 8FUN e-Bike Conversion Kit

All bicycles require regular maintenance to ensure certain levels of safety and performance. Electric bikes or e-bikes converted with the 8FUN Conversion Kit require even more care since they will usually be ridden farther and faster than a conventional bike.

Keeping your new conversion safe and reliable with scheduled care is easy if you know where to start. The list below outlines what you need to do and how often you need to do it to keep your new electric bike running smooth and safe. This list is intended for average riders or daily commuters. Ultimately the level of care should coincide with the amount of miles ridden and the conditions of those rides. The harder you ride, the more you have to care for your bike if you want it to last.

Your 8FUN hub motor wheel has been hand-built by a professional wheel builder with experience building wheels with hub motors for electric bike conversions. Every wheel has been stress tested and broken-in during the building process. This ensures that your new wheel will be true, round and perfect out of the box.

IMPORTANT: Initial “Wheel Tune Up” – Highly Suggested

Spokes will stretch and wheels will settle and loosen within the first 50-100 miles.

It is highly suggested that you schedule a “wheel tune up” within your first 50-100 miles of riding on your new wheel. Your local bike shop should be able to service your hub motor wheel, tightening spokes and ensuring the wheel is round and true. The extra torque of a hub motor stretches spokes. This is expected within the first 50-100 miles of riding. The initial wheel adjustment is most important. Subsequent “wheel tune-ups” are recommended every 3 months or 400 miles, whichever comes first.

Prior to Every Ride:

1. Check your wheels, especially your hub motor wheel(s) before and after every ride to be sure the spokes are tight and the wheels are solid.
2. Check your fork dropouts and your axle hardware and torque washers. Everything should be tight and secure.
3. Ensure you have proper pressure in your tires – under-inflated tires are hard on wheels. Higher tire pressure will increase the range of an electric bike by rolling with less resistance.
4. Check you brakes, cables and wiring – with the battery on test the e-brakes / be sure no wires or cables are hanging loose on the bike. Wires should be tidy internally, inside a bag or attached to the frame with zip ties.
5. Check your cranks, pedal and derailleur.
6. Make sure your battery is charged and secure and that all connections are tight.

After Every Ride:

1. Look over tires for any damage or puncture objects.
2. Turn off your battery or disconnect your battery from the controller.
3. Clean the bike and ensure all the parts are clear of dirt and debris

Once a Month:

1. Completely clean the bike.
2. Inspect tires for wear; rotate or replace if needed.
3. Inspect and lubricate brake levers, derailleur and all cables.

Inspect and check for looseness in the:

1. Rear rack mounting bolts.
2. e-brake/brake and derailleur cable anchors.
3. shifter lever mounting bolts.
4. e-brake/brake mounting bolts - do not alter brake centering.
5. stem binder bolt.
6. handlebar binder bolt
7. seat post binder bolt or quick release
8. seat fixing bolt
9. crank bolts
10. chain ring bolts
11. derailleur mounting bolts
12. bottle cage bolts

Every Three Months:

1. Wax your bike. A clean, shiny bike always seems to go faster and farther.
2. Inspect frame and fork for paint cracks or bulges that may indicate frame or part damage; pay particular attention to all frame joints.
3. Visually inspect for bent components: seat post rack or double rear rack, seat rails, seat post, stem. handlebar, chain rings, crank arms, brake calipers and brake levers.
4. Visually inspect all your connectors and connections. Make sure all connectors are making contact, rust free and show no signs of corrosion or burning.

Every Six Months:

Inspect and re-adjust bearings in headset, non-electric hub, pedals and bottom bracket (if possible; some sealed cartridge bearings cannot be adjusted, only replaced)

Annually:

Disassemble and overhaul; replace all bearings (if possible); and remove and if

necessary replace all brake and shift cables. This should be performed at 6000 miles if you ride more than that per year. Commuters who often ride in the rain or mountain bikers who get dirty should overhaul their bicycles more often.

This maintenance schedule is recommended for ensuring your e-bike remains safe and reliable. If you are uncomfortable performing any of the recommended maintenance on your electric bike you should consult a professional for assistance.

Remember:

Take care of your electric bicycle and it will take care of you

Looking for more 8FUN e-Bikes or e-Bike conversion kits, please see our website:

www.8funbike.com