



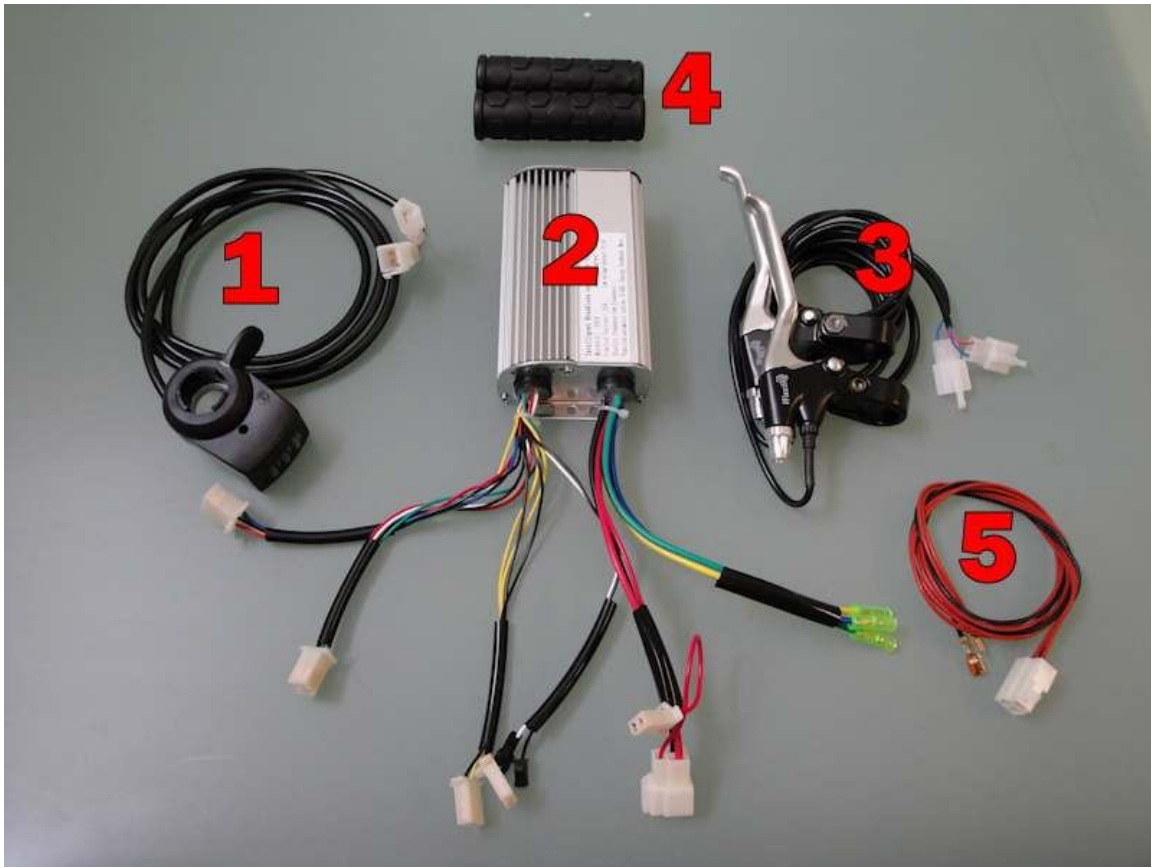
Installation Guide for Geared and DD Motors

Step 1. Opening your box



Inside your box you will find your hub motor and all of the parts.

Step 2. Parts Identification.



1 Thumb Throttle. (We have changed the design to a newer thumb throttle shown here.)



2 Electronic speed controller

3 Brakes with motor cutoff switch

4 Spare grips

5 Wiring to battery (if you have a complete kit including batteries these will already be wired for you)

Step 2. Continued - Parts identification

NOTICE.. You must use the screws provided with the kit for your disk brake.
The ones on your bicycle may be too long and ruin your kit.



500W750W Direct Drive Hub Motor. Comes in all sizes front and rear. 23 Mph at 36V.

Step 3. Disconnect the brakes.



Slide the rubber sleeve back

Step 3. Continued

Push the calipers together and disconnect the brakes. If you have disk brakes you can skip to the next step.



Step 4. Swap the Tire and Tube

Turn your bike upside down and remove your existing wheel. Remove the tire and tube and install it on the new hub motor.

If you are not familiar with changing tires/tubes on bicycles we highly suggest having a bicycle shop install the kit for you.



Step 5. Install Wheel

Install the new hub motor and tighten the nuts snugly. Do not over tighten as it may push the forks through the shoulder (small notch) of the axle.



If you have a **disk brake** remove it from your bike and install it on the hub motor before installing the wheel using the screws on the motor. Note: **You cannot install ANY hub motor**

on alloy forks as they are **CAST** aluminum and **WILL** break at the dropouts. Simply check the dropouts with a magnet, if the magnet sticks you are good to go. Otherwise you will need to a steel (chromoly) fork or use a rear kit. Rear kits are fine on aluminum frames as they are not cast aluminum

- Note: The wires coming from the motor will be on the **RIGHT hand** side if you were sitting on the bike.

Step 6. Remove Brakes and Shifter.

- Flip the bike back right-side up
 - Remove the grips
 - remove the brakes
 - remove the shifter

Note on removing grips.

These can sometimes be hard to remove, sometimes they can simply be twisted off. Another method is to get a screwdriver and push a handy wipe, or soapy hand towel under the grip, working it around. Squeeze and twist until loose.

Note on removing the brakes.

You may need to release the cantilever brakes on front and rear. On the brake lever there is a barrel and a lock nut, both with a notch in them. Align the notch with the notch on the brake lever, pull the cable out and remove the small round ball attached to the end of the brake cable.



Step 7.

- Install the throttle. Tighten it down just enough to keep it from moving freely but

enough so that you can still move it.

- Reinstall your shifter. Tighten same as the throttle.
- Install the included brake levers with integral cut-off switch. Tighten same as throttle
- reinstall your grips.

Now.. Sit on your bike and hand adjust your brakes, shifter and throttle so that they are in the most comfortable position for you.

After you have them in a comfortable position go ahead and tighten them down snugly.



Step 8.

- Start running all of your cables towards the back of the bike
- Loosely zip tie them, keep them clean and as hidden as possible.
- Make sure that when running cables you have a full turning radius without putting tension on the cables. If you do not allow enough room, you will pull the wires from the inside of the motor and this is **NOT** covered under warranty



Step 9.

- Once you have all your cables ran cleanly to the back of the bike, go ahead and zip them tight.
- Find a good location to mount your speed controller so that it will be well ventilated. It is very important that your speed controller be well ventilated to prevent overheating. Do not place inside the battery bag. Recommended locations are on the vertical bar (seatpost tube), or the front mounting bracket of the rear rack.





Step 11. After making your connections, zip tie everything tight, cut off your zip ties. Make sure all of your wiring is clean and hidden as possible.

As with All E-Bikes, use common sense. Do not hop curbs and avoid potholes. Especially if you are using an SLA pack or you will break your rack. A 25 LB SLA pack going off of a curb will weigh close to 500 lbs at the impact.

Connect your battery last (it will spark as the capacitors are charging). Go for a short ride, then check the axle nuts. ;For the first couple of weeks check your axle nuts, connections and spokes. The spokes may seat deeper from the twist force and may need to be tightened. Be sure to check axle bolts often as the torque will want to move them until they seat well.

We always suggest using one of our torque arms to prevent the axle from spinning inside of the dropouts.

If there is ANY part of this manual you do not understand you should

have it installed professionally or you may risk ruining the kit or harming yourself. We use very thick spokes. These cannot be gauged by spoke tension meter. After a week or so of riding, your spokes may seat themselves deeper and become loose. Feel by hand for loose spokes. Using a spoke wrench, turn them counter-clockwise 1/4 turn at a time until they feel the same as the rest of the spokes. If this is not done, the loose spokes may break which is not covered under warranty.

Troubleshooting:

99% of the time any problem with the kit is simply a mis-aligned connection.

1. **motor is shuddering**, or will not start without first rolling the wheel. This is caused by a mis-aligned hall sensor connection. (the small wires coming from the motor) Check all connections for a bent or mis-aligned connector.
2. **lights are on the throttle but it will not move**. Disconnect the brakes from the speed controller and try again. There is a micro switch embedded into the brakes and it may be stuck in the off position. Also check all connections for bent or mis-aligned connectors. This is also a symptom of a burnt out speed controller.
3. **Motor stops working for no apparent reason**. A connection may have come loose or the micro switch inside of the brake handle may be stuck. If you are using a lithium battery pack, the cells might be out of balance, causing the BMS to trip prematurely. Feel the controller and see if it is very hot. Going up steep hills with heavy loads at low speed may cause thermal overrun and burn out the speed controller (not covered by warranty)
4. **Lights on the throttle will always be on when you are stopped** . They will dim when you are on a hill. At a stop they will show you how charged the battery is.
5. If the battery is connected backwards to the speed controller it will instantly burn out the speed controller. If you purchase a 3rd party battery, be absolutely sure the polarity is correct before connecting to the speed controller. There is no reverse polarity protection, it will fry intantly and will not be covered under warranty. This happens when customers purchase batteries directly from China that use brown and blue leads rather than red and black as we do in the USA. If you are not certain, contact your battery vendor.