

# EBO Front Range Electric Bike Kit Installation Manual



**Step 1:** Remove front or rear wheel depending on which kit was purchased. If using old wheel and tube, remove them from bike rim.

**Step 2: Installing the Tire.** Confirm the direction of the tread pattern of tire (Cable will be on the right hand side for the front wheel kit). Pull one side of the wheel around the rim, insert the tube's valve stem into the opening on the wheel's rim. Place the rest of the tube between the rim and tire. Pull second side of the tire over the rim. Pump up the tire, insure the wheel bead seats and check for leaks.

**Step 3: Installing the Electric Motor/Wheel.** Place hub electric motor/wheel between the dropouts of the bike frame, insuring that the cables running to the front motor are on the right hand side in the driving direction. Otherwise the wheel will run backwards! Washers are supplied to insure correct spacing. Note, some bikes require the 6 screws and spacer for the disc brakes to be removed to fit correctly. Firmly seat the axle into the dropouts and tighten the nuts with washers very firmly. This is a crucial step, as the motor provides torque which may otherwise loosen the nuts.



**Step 4: Installing the E-Brakes, Throttle and LED Display Components.** Remove bike grips (use Isopropyl Alcohol), brakes, etc. from the handlebars. Loosen your brake cables at the brake pads and pull cable end out of the brake lever to reinstall into the E-Brakes. Install the E-Brakes, Throttle, LED Display and original shifters (if the bike has them) on the handlebars. Place E-Brakes in

original brake positions (reconnect brake cables), place shifters back to original position, position Throttle where it feels most comfortable, place the LED Display on the left hand side of handlebars. Last, reinstall the



handlebar grips (use Isopropyl Alcohol).

**Step 5: Installing the Pedal Assist Systems (PAS).** PAS is an optional component of the electric bike. The system controls the amount of electricity supplied to the motor proportional to the angular velocity of the pedal (the faster you pedal, the faster the motor turns). Remove the pedal crank arms (Crank Puller tool needed), place the sensor ring on the bottom bracket behind the right crank between the bottom bracket and bike frame (Bottom Bracket Removal tool needed). Place the magnetic ring next to the sensor ring with forward motion rotation arrows in the correct direction. Make sure they do not have any contact with a small space between them. Screw the pedal crank arms back into place. Option 2, the sensor ring can be placed on the frame with superglue behind the left crank (clean the surfaces thoroughly with alcohol before gluing).

**Step 6: Installing the Lithium-ion Flat Battery.** Remove screws for the bottle holder from frame. Use the screws to fix the battery holder to the frame. Put the battery



into the case, turn off battery and lock the battery.

**Step 7: Connecting the Electric Bike Cables.** First, decide the preferred placement of the cables along the frame. Run cables along the frame from the components (E-Brakes, Throttle and LED Display) to the matching connectors coming out of the Controller. Connect the Electric Motor cable to matching connector coming out of the Controller. Be sure to place this cable in a safe location, so the bike chain and spokes cannot damage it. Connect the cable between the PAS and matching connector coming out of the Controller. Connect the black and red controller and battery leads. Place the Controller and extra wiring in the EBO Controller Box. Mount the Controller Box on seat tube water bottle cage screws or zip tie on the bike frames.

**Step 8: Cable Tying.** Secure the cables to bike frame using zip ties. After tying cables, rotate handlebars to insure a smooth undisturbed movement.

**Step 9: Checklist (Turn off Battery).**

1. Wheel is secured in place.
2. Back and front wheels are vertically aligned.
3. Wheel has no loose parts.
4. All components on the handlebars have been securely tightened.
5. Throttle, E-Brakes, etc. are in comfortable positions.
6. The handlebars are able to rotate freely.
7. The mechanical brakes work properly.
8. The battery cannot slide off when locked
9. Insure the battery poles are connected correctly.
10. Read LED manual.

**Step 10:** Turn on the battery power switch, push the power button on the LCD controls and enjoy the ride!!!

## Getting Started, lay out the contents inside the box:

1. EBO Electric Motor/Spokes/Rim/Washers
2. EBO Lithium-ion Flat Battery
3. Battery Charger
4. 36V 22A Controller
5. EBO Controller Box
6. LED Display
7. E-Brakes
8. Thumb or Twist Throttle
9. PAS (Petal Assist System)
10. Zip Ties

## Basic Tools Needed:

- Allen Wrenches
- Adjustable Wrench
- Phillips Screwdriver
- Tire Levers
- Tire Pump

## Optional Tools Needed:

- Crank Puller
- Bottom Bracket Remover