



OWNER'S MANUAL

The E-BikeKit™ Electric Bicycle Conversion System

WWW.E-BIKEKIT.COM

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E-BikeKit LLC

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Lambertville, NJ 08530

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The E-BikeKit™ 36V/500W Complete System offers the ultimate electric bicycle conversion solution. The complete system has everything you need "out of the box" to convert your conventional bike into a high-quality electric bike. Complete System includes the E-BikeKit Conversion Kit plus the E-BikeKit SLA battery &



charger. This manual covers complete systems, conversion kits and SLA batteries.

The E-BikeKit electric bicycle motor kit is supplied as a set of do-it-yourself parts for the user to install on their bicycle. Because this kit is installed, maintained and operated by the purchaser, E-BikeKit LLC 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 deter-

E-BikeKit Product Registration Form

There is a unique serial number on the hub motor plate of every E-BikeKit hub motor.

All owners of E-BikeKit products are encouraged to officially register their products via our convenient online Product Registration Form (http://e-bikekit.com/shop/pages/product_registration.html).

You can also cut and send the following information by mail:

Product Registration

* Full Name: _____

* Address: _____

Product Registration: _____

* Full Name: _____

* Address: _____

Address Line 2: _____

* City: _____

* State/Province/Region : _____

* Postal/Zip Code: _____

* Country: _____

* Email: _____

* Serial #: _____

* Purchase Date: _____

* Product Purchased: _____

• Purchased From: _____

Send To:

E-BikeKit LLC
 204 N Union Street
 Lambertville, NJ 08530

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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 provided instructions should be considered as general guidelines only - every electric bike conversion will be slightly different. If you do not have the mechanical ability to correctly and safely install this electric bicycle kit, you should obtain the services of a professional bicycle shop or other qualified technician. Installation and use of this e-bike conversion kit will create an electric motor vehicle that has exposed moving parts, electrical connections and high powered batteries. Any or all of these components can be dangerous! Federal Law mandates that no person under the age of 16 shall operate a motorized bicycle. Always wear a helmet, ride responsibly and observe all Federal, State and Local laws.

United States Electric Bicycle Regulations

For reference only. Not legal advice. Be aware that electric bikes may be considered motor vehicles in some states. It is your responsibility to know the law.

Federal law says that an electrically driven bicycle is considered a "bicycle" and the laws of bicycles apply if:

- * Electrically driven bicycle has less than 750 watt motor
- * Functional pedals
- * Max speed is less than 20mph

Sec. 1512.2. to read as follows: (1) A two-wheeled vehicle having a rear drive wheel that is solely human-powered;
(2) A two- or three-wheeled vehicle with fully operable pedals and an electric motor of less than 750 watts (1 h.p.), whose maximum speed on a paved level surface, when powered solely by such a motor while ridden less than 20 mph.

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Conversion Kit Box Contents

1 x USA Hand-Built Wheel w/ Double-Walled Rim and Electric Hub Motor
1 x Electric Bike Battery Pack (Sealed Lead Acid)
1 x 2 Amp E-Bike Battery Charger
1 x 36 Volt 20 Amp Motor Controller (works w/ any 36v or 48v battery pack)
1 x 3 Speed Switch - Limits Throttle to 30%, 60% or 100% of Full Power
1 x Electric Bike Throttle & Matching Grip
1 x Universal Stainless Steel Torque Arm
15 x Black Zip Ties (for neatly securing wiring to the frame)
1 x 3mm Metric Hex Key (to mount the throttle)
1 x Owner's Manual & Installation Instructions

Note: High Quality 30amp Anderson Powerpole Connectors are Standard on all E-BikeKit products.

PLEASE CHECK ENTIRE CONTENTS OF BOX FOR PARTS AS THEY CAN BE PACKED UNDER THE CORNERS.

36V/500W Conversion Kit Specifications

Motor: Direct Drive Brushless Hub Motor
Power: 36v (500-750w / 20MPH) / 48v (up to 1000w / 24MPH)
Wheel: Hand-Built with 500-750w Brushless Hub Motor
Rim: Flat Profile Double-Walled
Spokes: 13 Gauge Stainless Steel
Weight: 14 Pounds
Hub Width: 85mm / 3.35 Inches (requires standard 100mm width between fork dropouts)
Range: Range is dependent on battery capacity, weight of rider, route and pedaling.

Latest Model Controller

E-BikeKit™ 36-48v 22 Amp
Brushless Motor Controller
Runs at 36 or 48 volts
(up to 60v nominal)



Please Note: There are NO E-BRAKES included with the current system. Therefore there are no e-brake wires on the current controller.

Also, The "Speed Control" wire functionality is as follows:

When the Speed Control loop wires are connected: The controller will operate at 100% power using the throttle only and the 3-speed switch is not functional.

When the Speed Control loop wires are NOT connected: The controller will operate at 60% power by default and the 3-speed switch can be used to toggle between 30%, 60% and 100% of power.

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of improper charger, improper maintenance or other such misuse, or normal wear.

Batteries should not be submerged in liquid for any reason.

Warranties are limited to replacement of parts and/or products determined by E-BikeKit, at its sole discretion, to be defective. In cases where multiple components are missing, you may be redirected to the retailer for assistance.

E-BikeKit Limited Warranty does not cover or apply to the following: Normal wear and tear; any damage, failure and/or loss caused by accident, shipping, misuse, neglect, abuse and/or failure to follow instructions or warnings as stated on the product or in the applicable owner's manual or other printed materials provided with the product; damage, failure and/or loss caused by the use of the product for stunt riding, ramp jumping, competition, off-road use, acrobatics, trick riding or other similar activities, or use in any other manner for which such products were not specifically designed.

This warranty does not apply to any products or components, mechanical and/or electrical, which have in any way been altered from their original configuration by any person. E-BikeKit will not be liable and/or responsible for any damage, failure or loss caused by any unauthorized service or use of unauthorized parts.

Warranty Claims

Those parts and/or products which are determined by E-BikeKit to be defective and to qualify for warranty replacement will be provided at no charge, only after a valid warranty claim is processed by E-BikeKit Customer Service Department. Warranty claims must be made by the original purchaser by contacting the E-BikeKit Customer Service Call Center (1.866.882.3245) within the warranty period (stated above). Shipping & Handling fees will apply to all orders placed for warranty parts and/or products and will be invoiced to the customer/warranty claimant at the time said parts and/or products are shipped from E-BikeKit.

E-BikeKit, at its sole discretion, has the option of replacing with a new part, or factory re-certified part. The Limited Warranty stated herein is in lieu of and expressly excludes all other warranties not expressly set forth here and, whether expressed or implied by law or otherwise, including, but not limited to, any warranties for merchantability and/or fitness for any particular purpose. E-BikeKit shall in no event be liable or responsible for incidental or consequential losses, damages or expenses in connection with their products. The liability of E-BikeKit hereunder is expressly limited to the replacement of goods complying with this warranty or at the sole discretion of E-BikeKit to the repayment of an amount equivalent to the purchase price of the product in question.

When all connections are correctly and securely attached, plug your battery into the controller. If you're using your own battery pack, you can use the wiring harness (included with the kit) to easily connect your battery pack.

Step 8 - 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.

Limited Warranty

E-BikeKit products are warranted to the original retail purchaser when purchased directly from an authorized E-BikeKit dealer or from the E-BikeKit online store (<http://www.e-bikekit.com/shop/>), to be complete and free from defects in materials and workmanship. All E-BikeKit product warranties are effective from the date of purchase by the end user provided the product is purchased in NEW condition.

Hub Motors and Parts Warranty

Direct Drive Hub Motor - 2 YEARS (up to 48 volts)

Kit, Parts & Battery Chargers - 6 MONTHS

What is Not Covered by the E-BikeKit Warranty

"Spin Out" - Spinning out the axles inside of your dropouts - We are unable to be there when the kit is installed so it is up to you to understand the high torque involved at the dropouts and install them correctly. If your dropouts are not correctly suited to fit the axle then you should not install the kit on those forks. Get new forks, file the forks to the axle fit "flush" or contact us to return the kit. We will not refund or replace a motor that has been "spun out".

"Over Voltage" - Connecting a larger battery larger than 60 nominal volts can damage the controller, wires and/or connectors. Damaging any kit component or motor by connecting the wrong battery type is not covered under our warranty. The E-BikeKit controller will work with any 36 volt or 48 volt(60v nominal) battery pack. Using the controller with any battery larger than 60 nominal volts will void the warranty for your controller.

Water Damage to the Battery/Improperly Caring for the Battery -

The battery warranty does not include damage from power surges, use

36v 14ah Rechargeable Sealed Lead Acid Battery Pack



Every pack ships professionally soldered in a series and is completely "Plug & Ride" with Anderson Powerpole connectors.

Range: 12-34 Miles

Weight: 27 Pounds

Charging Time: 6.5 Hours w/ 2Amp Charger

Cycle Life: 250+ (charge - discharge cycles before nominal capacity falls below 80%)

Features:

- -Professionally Soldered Wiring
- -Anderson Powerpole Connectors
- -Durable Handle
- -Reflective Strip for Safety
- -Extra Wide Velcro Straps for Securing to a Rear Rack

Please Note: This battery is 27 pounds. A heavy duty steel rear rack is recommended.

A full step by step video installation guide is posted online at: www.e-bikekit.com

Step 1 - Make Sure Your Bike is Suitable for Conversion

The E-BikeKit 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)

You MUST use a Universal Torque Arm.



A universal torque arm is included with every E-BikeKit. Torque arms provide increased support at the axle and are used to prevent the axle from ever "spinning out" inside the dropouts. Both front and rear wheel conversions require torque arms.

Step 2 - Install the Hub Motor Wheel

Take the E-BikeKit™ 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 arms 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 arms should always be used. Tighten axle bolts and secure torque arm. 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..

Step 3 - Install the Throttle

Next remove the grips from the handle bars to install the throttle. If you have a twist throttle, simply slide it onto your right side handlebar and tighten in place with the provided 3 mm hex wrench. If you are using a thumb throttle you will need to remove your right grip, slide the thumb throttle onto the handlebar, slide your right handle grip back into place and then secure the thumb throttle with the hex wrench.

Step 4 - Install the Rear Rack & Secure Your Battery Pack

It is a little different for each bike, but generally when installing a rear rack you'll use the axle for the lower support and the seat post for the upper support. Racks come in many styles so each installation will be different depending on the type of rack used. Make sure your battery is secure and snug so it will not move when riding. If you are unsure about how to secure the battery properly you should consult a professional.

Step 5 - Mount the Controller

Now you have to decide where you would like to mount the controller. The most common places are behind the seat or on top of the battery bag. Do not mount it inside the battery bag because the controller needs ventilation to prevent overheating.

Step 6 - 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 (included with the E-BikeKit™). 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 7 - Connect the Electronics

Connect the wires from the motor, 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.