E-BikeKit®

Electric Bicycle Conversion Kit

OWNER'S MANUAL

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OWNER'S GROUP

THANK YOU FOR PURCHASING YOUR **E-BIKE/TRIKEKIT**

Please read this owner's manual prior to operating your E-Bike/TrikeKit. This manual will answer many of your questions but if you encounter any problems, please email us at support@ebikekit.com or call 1-866-882-3245.

Please join our E-BikeKit Facebook page! The E-BikeKit Complete Electric Bike Conversion System Facebook group is packed with fellow E-BikeKit customers, who share their experiences, pictures of their e-bike or trikes, and will even answer questions about their E-BikeKits.

E-BikeKit®
Electric Bicycle Conversion Kit

RESPONSIBILITY

BIKE SAFETY

1. Obey all rules of the road and all local traffic laws.
2. Always wear a helmet.
3. You are sharing the road or the path with other motorists, pedestrians and cyclists. Respect their rights.
4. Ride defensively, always assume that others do not see you.
5. Look ahead and be ready to avoid:
   - Vehicles that are slow or turning, entering the road or your lane ahead of you, or behind you.
   - Doors opening from parked cars.
   - Pedestrians stepping out.
   - Children or pets playing near the road.
   - Pot holes, sewer grates, gravel, railroad tracks, expansion joints, road or sidewalk construction, debris and other obstructions that could cause you to swerve into traffic, catch your wheel or otherwise cause you to lose control and have an accident.
   - The many other hazards and distractions which can occur on an e-bike ride.
6. Ride in designated bike lanes, on designated bike paths or as close to the edge of the road as possible, in the direction of traffic flow or as directed by local governing laws.
7. Stop at stop signs and traffic lights; slow down and look both ways at street intersections. Remember that a bicycle always loses in a collision with a motor vehicle, so be prepared to yield even if you have the right of way.
8. Never ride with headphones. They mask traffic sounds and emergency vehicle sirens, distract you from concentrating on what's going on around you.
9. Don't do stunts, wheelies or jumps. Think carefully about your skills before deciding to take theses larger risks.
10. Don't weave through traffic or make any moves that may surprise people with whom you are sharing the road.
11. Observe and yield the right of way.
12. Never ride your e-bike while under the influence of alcohol or drugs.
13. If possible, avoid riding in bad weather, when visibility is obscured, at dawn, dusk or in the dark, or when extremely tired. Each of these conditions increases the risk of accident.

LIABILITY

The operator (rider) is solely responsible for obeying all federal, state, and local traffic laws and any other law related to electric bicycles or other vehicles. Electric Bike Technologies, Inc. assumes no legal responsibility for the operation of it's products on public or private property.

Electric Bike Technologies, Inc. cannot offer any legal advice on the operation of electric bicycles or tricycles in a particular area and does not guarantee that an electric bicycle or tricycle is legal for you to operate.

Electric bicycles and tricycles may be restricted in speed or power output in your area. It is your responsibility as the operator (rider) to research, understand, and obey all applicable laws.

Please only ride within your ability. Do not exceed safe speeds, corner quickly, or attempt to ride over uneven terrain. Failure to ride safely may result in serious injury or death.

Do not operate your bicycle or tricycle when weather, road conditions, or traffic make it unsafe to do so.

Maintain your bicycle or tricycle. Service all parts regularly and inspect them carefully before operation. Have tune-ups performed by a qualified mechanic. Do not ride, if any part is mis-adjusted or broken.

Riding a bicycle or tricycle can result in serious injury or death.

BOX CONTENTS

NOTE: *IF YOU DON'T HAVE THE MECHANICAL ABILITY TO CORRECTLY AND SAFELY INSTALL THIS KIT, THEN CONTACT YOUR LOCAL BIKE SHOP OR CALL US AT 1-866-882-3245 AND WE'LL FIND YOU A QUALIFIED BIKE SHOP NEAR YOU.*

This kit is installed, maintained and operated by the purchaser, Electric Bike Technologies, Inc. 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 a particular bicycle. The following instructions should be considered as a general guideline only–your installation will be slightly different. Installation and the use of this kit will create a vehicle that has exposed moving parts, electrical connections and high powered batteries.

OWNER'S MANUAL ONLINE

To download your E-BikeKit or E-TrikeKit owner's manual – CLICK HERE!

E-BIKEKIT CONTENTS

(1) Hand-Built Wheel w/Disc Compatible Hub Motor
(1) 48v 22Amp Brushless Motor Controller
(1) LCD Display
(2) 1 Thumb and 1 Split-Twist Throttles
(2) Left & Right E-Brake Levers
(1) Extension Wire for the Motor
(1) 4-to-1 Wire for Throttle/E-Brakes/LCD
(1) PAS Sensor
(1) 12-Magnet Split-Disc PAS Ring

INCLUDED ACCESSORIES

(1) Universal Torque Arm
(1) Freewheel (rear kits only)
(14) Zip Ties
(2) C-Washers
(1) Battery Wire Harness Kit (w/o battery only)

E-TRIKEKIT CONTENTS

(1) Hand-Built Wheel w/Disc Compatible Hub Motor
(1) 48v 22Amp Brushless Motor Controller
(1) LCD Display
(1) Split-Twist w/ Reverse Throttle
(2) Left & Right E-Brake Levers
(1) Extension Wire for the Motor
(1) 3-to-1 Wire for Throttle/E-Brakes/LCD
(1) 4-to-1 Wire for 2 E-Brakes (by request only)
(1) PAS Sensor
(1) 12-Magnet Split-Disc PAS Ring

INCLUDED ACCESSORIES

(1) Universal Torque Arm
(1) Freewheel (rear kits only)
(14) Zip Ties
(2) C-Washers
(1) Battery Wire Harness Kit (w/o battery only)

TOOLS NEEDED BUT NOT INCLUDED

(4) Allen Keys: 2.5, 3, 4, and 5mm
(2) Phillip and Flathead Screwdrivers
(2) Tire Levers
(1) Metal File

COMPATIBILITY

***NOTE:** OUR E-BIKEKITS WILL FIT MOST BIKES. TO SEE IF YOUR BIKE IS COMPATIBLE, FOLLOW THE INFORMATION BELOW.*

FRONT CONVERSION

Standard front fork dropouts are 100mm (or 4") of space between the front fork dropouts. (See photo 1.1)

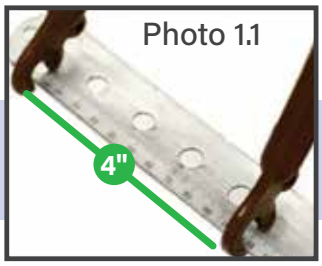


Photo 1.1

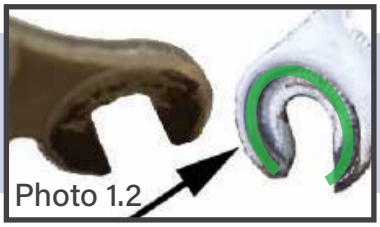


Photo 1.2

Quick-Release tabs are located in the fork tips. They are an indent where quick-release levers sit. The quick-release axles require a c-washer to fill in the indentations. (See photo 1.2)

REAR CONVERSION

Standard rear frame dropouts are 135mm (or 5 5/16") of the space between the rear dropouts. (See photo 1.3)

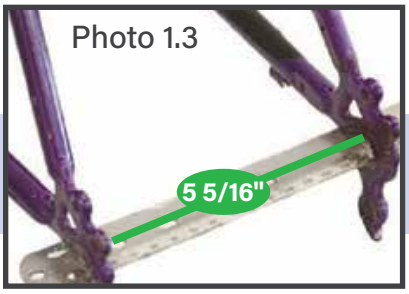


Photo 1.3

FRONT & REAR CONVERSION

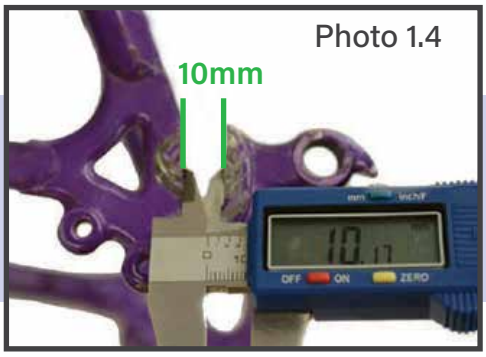
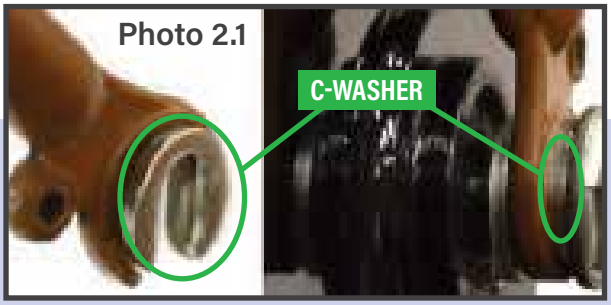


Photo 1.4

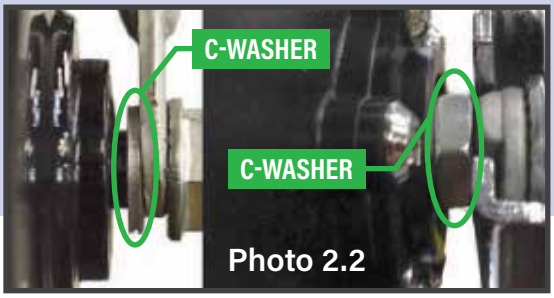
The rear frame dropouts need to be 10mm (or 13/23") of clearance. If everything else fits but the axles don't, then carefully remove the paint from the inside of the dropouts with a metal file. (See photo 1.4)

WHEEL INSTALL

Remove your tire and tube off your bike/trikes original wheel and re-install your tube and tire on the E-Bike/TrikeKit wheel.



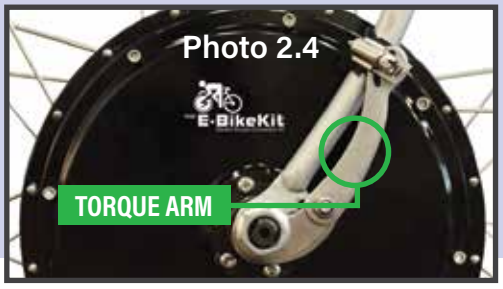
The c-washers will be needed for dropouts that have quick-release indents. If there are no indents, in the dropouts, then you don't need a c-washer. (See photo 2.1)



Motors that use tabbed washers should have the tab at the bottom of the dropout. The washer will be facing the dropouts on either the inside or the outside. All motors need a washer or locknut on the inside of the dropouts. (See photo 2.2)

The 6 bolts that are used to secure the disc onto the motor should be on the non-drivetrain side of the bike/trike. This is the correct way to install the wheel. (See photo 2.3)

The torque arm will go on the wire side or the non-wired side of the hub. It can face the front or back of the bike. Some bikes will need one or two c-washers to keep it clear from the frame. Fully tighten the hose clamp. It should deform and match the shape of your fork. Tighten the bolt on the torque arm. (See photo 2.4)



Tighten the axle nuts once the axle is straight in the dropouts. Use the torque wrench to tighten the nuts to 35 ft-lbs. (or nominal force with a 10" wrench).

ASSEMBLY

YOU DON'T HAVE TO USE OUR E-BRAKE LEVERS, BUT FOR SAFETY REASONS, THEY ARE GREAT!
Our E-brake levers will cut the power to the motor, as soon as you squeeze the brake levers. This kit will work without the brake, as long as you don't install it!

E-TRIKEKITS ONLY: *MOST TRIKES HAVE ONLY A RIGHT OR LEFT BRAKE LEVER. OUR KITS INCLUDE BOTH. CHOOSE THE ONE THAT FITS ON YOUR TRIKE. AN ACCESSORY CABLE FOR CONNECTING, THE TWO BRAKES, IS AVAILABLE SEPARATELY BY REQUEST.*

INSTALL GRIPS & E-BRAKES

- To remove your grips, carefully lift the edge of the grip with a screwdriver and squirt a little bit of WD40 under the grips. Twist and pull off the grips.
- Remove your old brake lever.
- Slip the e-brakes on your handlebar and tighten the clamp with a 5mm allen wrench.
- Insert the brake cable into the brake lever.

WHICH THROTTLE SHOULD I USE?

- If you are using grip shifters, you will need to use a **Thumb Throttle**. (See photo 3.1)
- If you are using trigger or thumb shifters, you will need to use a **Split-Twist Throttle**. (See photo 3.1)

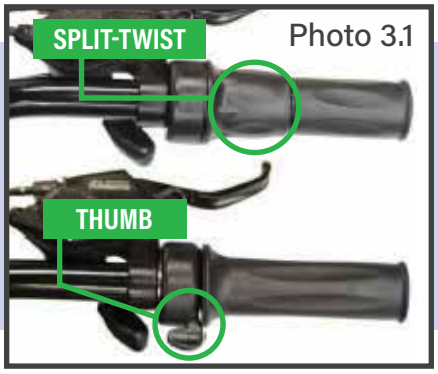


Photo 3.1

INSTALL THROTTLE

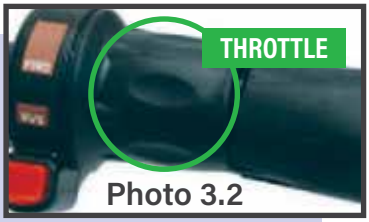


Photo 3.2

- Make sure the grips are off and the e-brake lever(s) are installed.
- Slip-on the throttle, of your choice, onto the handlebar. (See photo 3.2)
- Make sure the supplied plastic buffer is in place.
- Tighten the throttle clamp with a 3mm allen wrench.

RE-INSTALL THE GRIPS

- Give the handlebars a good cleaning by scrubbing it with a rag or sponge.
- Spray the inside the grip with hairspray or rubbing alcohol.
- Push the grip on, by twisting as you push, working it onto the handlebar.

ASSEMBLY

RE-CONNECTING THE WIRES


Photo 4.1

- Pair up each wire of the same color.
- Line up the arrows before carefully pushing them together. (See photo 4.1)

MOUNT THE CONTROLLER

The controller can be securely mounted in three ways:

- **Under the rack or basket** using the zip ties. (See photo 4.2a)
- **On the bike/trike frame** using the band clamps or zip ties. (See photo 4.2b)

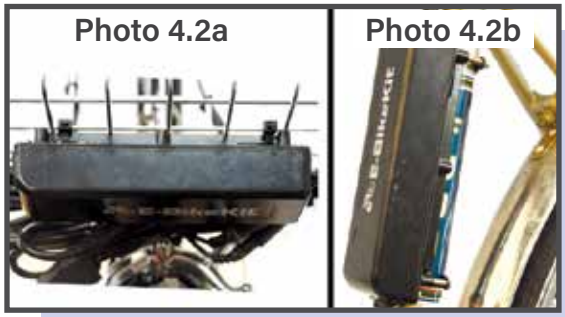


Photo 4.2a

Photo 4.2b

WIRE CONNECTIONS

Line up the arrows on the connectors and carefully push them together. Be careful not to bend the pins when pushing the connectors together. Connect these wire connections:

- 4-to-1 (or 3-to-1 for E-TrikeKit) wire to the controller.
- One end of the motor extension wire to the motor.
- The motor extension wire to the controller.
- The battery to the controller.

Tuck the cables into the flex route, and secure the cobra ties. Be sure you have enough slack to move the handlebars freely. (See photo 4.3)


Photo 4.3

FINAL ADJUSTMENTS

- Don't forget to set up your LCD before riding. (See instruction on pages 12–14)
- Double check that the brakes are adjusted and working correctly.
  - Lift the wheel off the ground and push the throttle. Watch the wheel spin and test the e-brake (if installed).
  - Inspect the kit to be sure that the wheel is secure and hasn't moved.

WHAT'S THE PAS?

The Pedal Assist Sensor (PAS) will sense how quickly you are pedaling (cadence) and use that to run the motor. It's compatible with the throttle. You'll be able to use the throttle at any time while using the PAS and vise-versa.

COMPATIBILITY OVERVIEW

The magnet ring is a split-ring, meant for the installation, without removing the cranks or bottom bracket. It will fit on a square taper spindle, 3-piece cranks with an 8mm or more of the exposed spindle. It also fits on some American (one-piece cranks). The magnet ring will not fit external bearing, press-fit, or internally geared bottom brackets.

The PAS sensor is to be zip-tied onto the center of the seat tube of the bike (see photo 5.1) and aligned with the center of the bottom bracket spindle. For mounting the sensor on trikes or unusual bikes, you may need a bracket to mount it into the place of the seat tube.

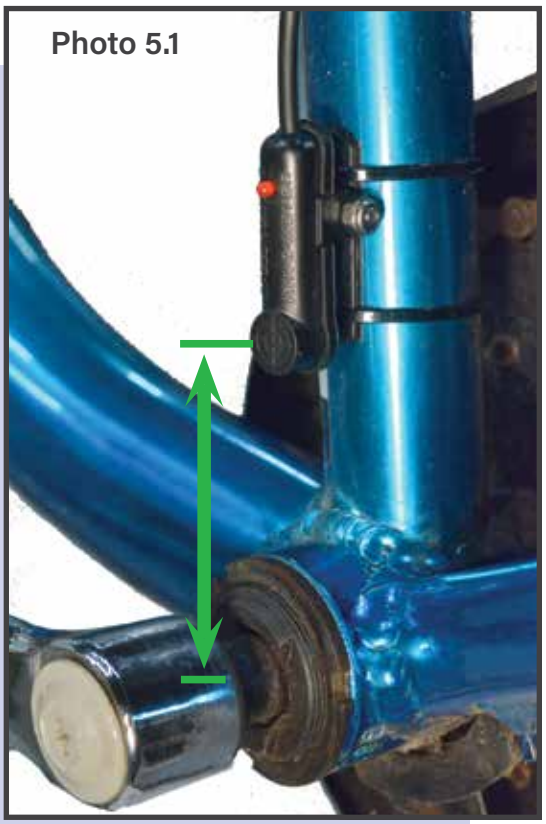


Photo 5.1

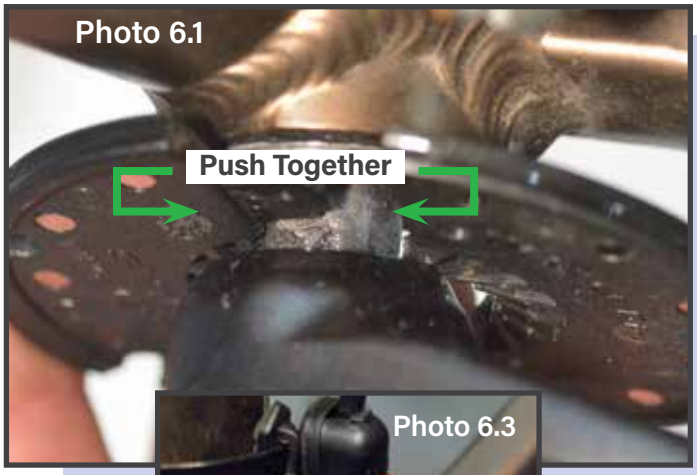
The sensor in the kit is meant to mount only on the left side (the non-drivetrain side) of the bike. It will not fit on all bikes, particularly bikes with narrow bottom bracket spindles. The fit on some spindles, maybe loose, a dab of hot glue or epoxy will keep it in place.

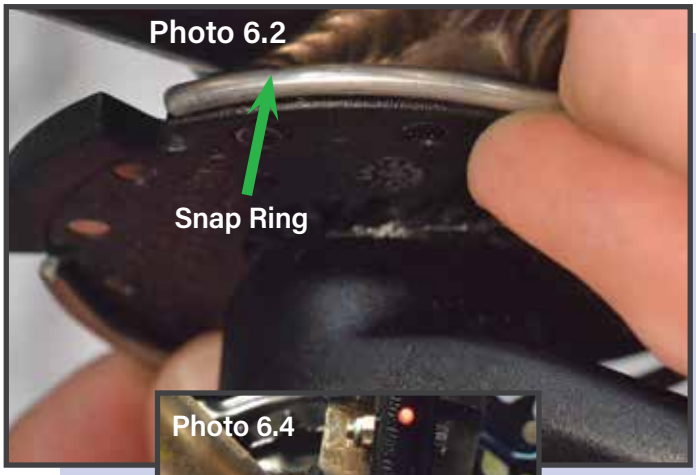
With many bikes there might not be enough space for the right side mounting or the small chainring (< 26t) interferes. The magnet will not fit on the right side of American (Ashtabula wone-piece cranks) without modification.

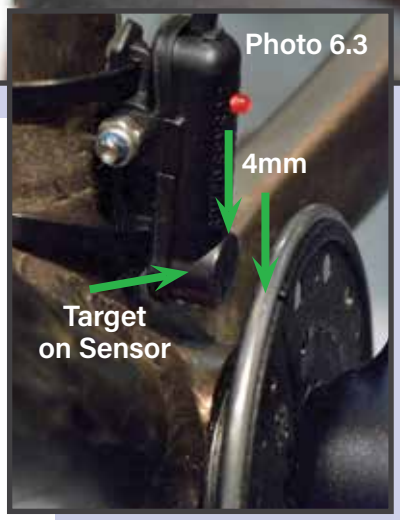
PAS INSTALL

NOTE: *THIS INSTALLATION IS FOR THE LEFT SIDE ONLY. THE MAGNET RING IS DIRECTIONAL, THE SIDE THAT FACES THE SENSOR IS LABELED, "WORKING SURFACE."*

- Push the two halves of magnetic rings together. (See photo 6.1)
- Install the snap ring onto the magnetic ring. (See photo 6.2)
- Loosely attach the sensor with the zip-ties, do not zip completely. Align the sensor within 4mm of the magnetic ring. (See photo 6.3)
- Align the target on the sensor, with the center of a magnet. (See photo 6.3)
- Remove the adhesive backing and tighten the zip-ties.
- You must line the magnet disc up, so it spins straight.
- The right side sensor will not fit on all bikes, except some triple chainrings, or American (Ashtabula one-piece cranks) without modification.
- The fit on some spindles, may be loose. A dab of hot glue or epoxy will keep it in place.
- The fins on the magnetic ring, may need to be shortened or removed for certain installations.







BATTERY INFO

CHARGE THE BATTERY

- Plug the charger into the wall and then plug the battery into the charger.
- The LED light will be red when the battery is charging.
- The LED turns green when it's done charging.

LED INDICATORS

Flashing Green – Charger isn't connected to the battery.

Steady Red – Battery is charging.

Steady Green – Charge is complete.

LOCK & SWITCH

- The key must be in the "on" position to use*. (See photo 7.2)
- To remove the battery, push the key in while turning to "unlock," then remove the key before removing the battery.

* Photo 7.2 is a aluminum case for a lithium ion battery only.

BATTERY CARE

- When you receive the E-BikeKit, the battery is only partially charged. Fully charge the battery before using it and after every ride.
- Batteries are “memory free," so you don’t need to (and it’s much better for the battery, not to) discharge the battery fully during use.
- Maintain your battery's health by storing it fully charged, and charge it once every 30 days, when you aren't using it.
- Do not disassemble, puncture, drop, or burn the battery. Do not cut any wires, this will void the battery warranty.
- In cold weather, never use your battery below 32° and never charge the battery below 40°. After riding in cold weather, bring the battery indoors and allow two hours for the battery to warm up to room temperature, before charging.

BATTERY RACK

UPPER STRUTS

- The rack must be fully installed on the bike before mounting. (The battery plate is only for 48v 10Ah battery.)
- The short screws and washers are used for attaching the upper struts. (See photo 8.1)

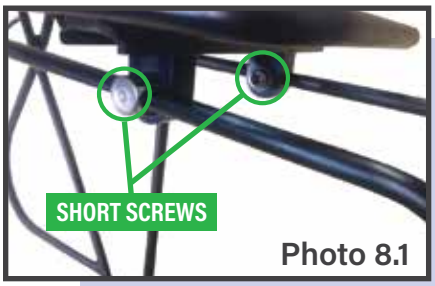


Photo 8.1

LOWER STRUTS

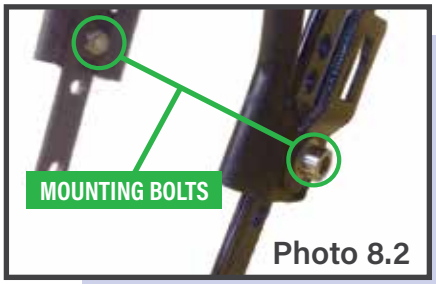


Photo 8.2

- The lower tabs use the long mounting bolts, nuts, and washers. (See photo 8.2)

MOUNTING PLATE

- After installing the rack, bolt the mounting plate to the rack. This only applies to the 48v 10Ah battery. (See photo 8.3)

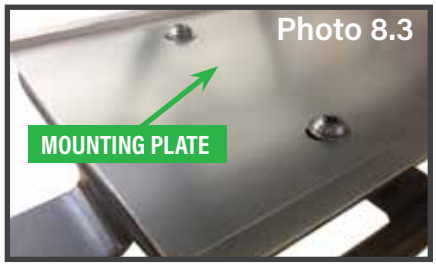


Photo 8.3

HARDWARE OVERVIEW

This hardware is **ONLY** for an **E-BikeKit, 48v 10Ah battery**.

- **Mounting Plate** includes (4) pan head screws, (4) washers, and (4) nuts. (See photo 8.4)
- **Upper Struts** includes (4) short screws, (4) washers, and (2) draw nuts. (See photo 8.5)
- **Lower Struts** includes (2) long screws, (2) washers, and (2) nuts. (See photo 8.6)

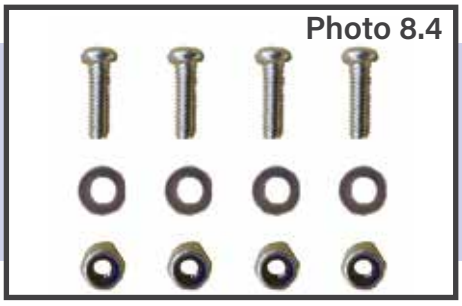


Photo 8.4

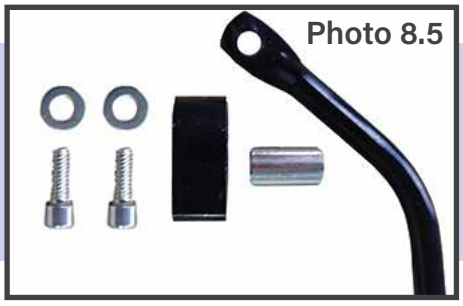


Photo 8.5

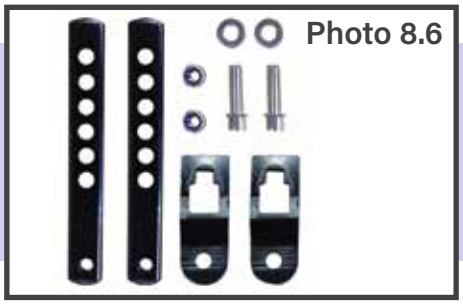


Photo 8.6

LCD OVERVIEW

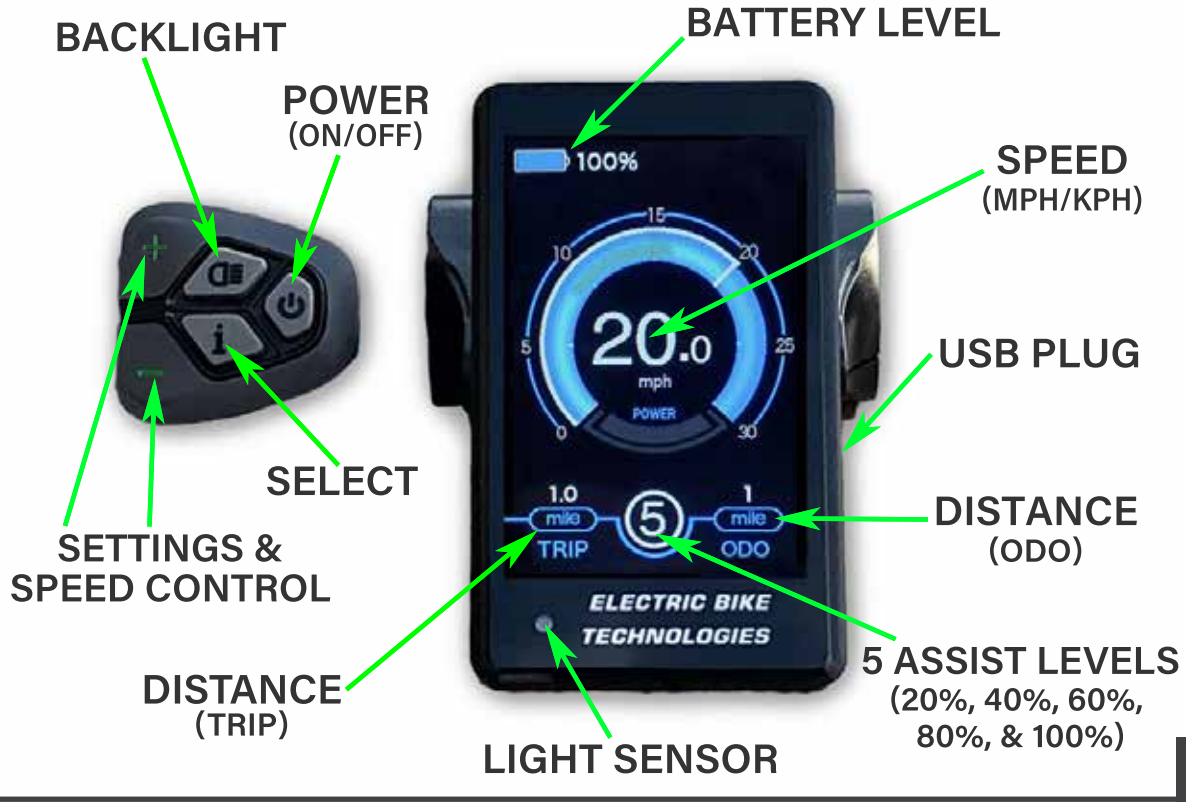


Photo A

ON AND OFF

To power the LCD on or off, press the ⏻ for a few seconds.

ASSIST LEVELS

There are 5 assist levels of power: **20%, 40%, 60%, 80%** and **100%** of power, (see photo B). The **+** increases the power and the **–** decreases the power.

Photo B

ADDITIONAL NOTES

- The LCD is retro-compatible with 2017 models.
- This LCD model has a memory. It will remember what power level you were using, the last time you ridden.
- On the right side of the LCD, there is a **USB Plug**, (5v) that you'll be able to charge your mobile devices. (See photo C)

Photo C

LCD SET UP

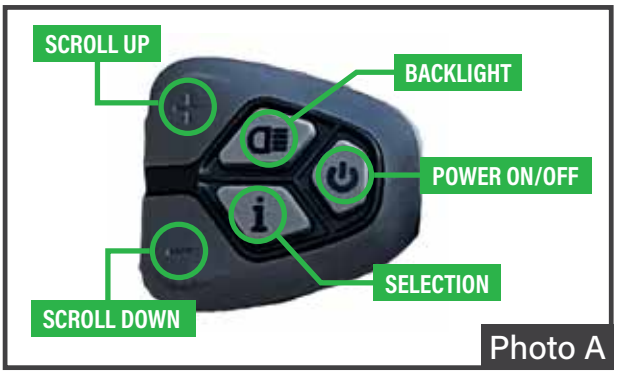


Photo A

MENU – To access the **user settings menu**, hold the **+** and **–** buttons down for two seconds.

NAVIGATATION – To **scroll up and down** the menu, use the **+** and **–** buttons. To scroll up, use the **+** and to scroll down, use the **–** button.

SELECTION – To make a **selection**, press the **i** button to confirm your selection.

UNIT – Use the **+** and **–** to select **Imperial US** or **Metric.** If you are in the U.S. then choose, Imperial US. Use the **+** and **–** to select the unit and then the **i** button to confirm the selection.

Press the – button for the next selection.

SPEED LIMIT – By default it's 20 mph. The top speed is determined by the battery voltage, motor type, and wheel size. If you know all those specs, then to change the speed, use the **+** and **–** to select the speed and then the **i** button to confirm the selection.

Press the – button for the next selection.

WHEEL SIZE – The default is 26". The choices are **16"**, **20"**, **24"**, **26"**, and **700c**. Use the **+** and **–** to select the wheel size and then the **i** button to confirm the selection.

Press the – button for the next selection.

MOTOR TYPE – E-BikeKit sells two types of motors. The **Heavy-Duty motor** is a 500w direct-drive, that's best for heavier riders and cargo. The **Performance motor** is 500w geared motor, best for top speed, and performance. Use the **+** and **–** to select the motor type and then the **i** button to confirm the selection.

Press the – button for the next selection.

BATTERY – There are 5 battery choices: **48v 9Ah, 48v 10Ah, 48v 14Ah, 48v 20Ah, 48v SLA, 36v SLA** and **DIY**. DIY is a custom option that has 5 settings, (see the video at 16:05 for more information). The newer batteries will be the 36v and 48v li-ion batteries. Use the **+** and **–** to select the battery type and then the **i** button to confirm the selection.

Press the – button for the next selection.

CURRENT LIMIT – The E-BikeKit has a standard **20 Amp Controller**. This is the only selection, so no change is needed.

Press the – button for the next selection.

LCD DISPLAY SET UP VIDEO

Learn How To Set Up Your LCD Display
☞ ***CLICK HERE!***

LCD SET UP

PAS SETTING – The E-BikeKit has three PAS settings. You can tinker and fine tune the PAS settings to make it custom for your liking.

- **PAS DELAY** – How many magnets pass the crank sensor before the PAS (motor) turns on. The deault setting is 3.
- **PAS POWER** – Is how much torque is needed. The default is 5.
- **PAS SENSITIVITY** – Is a blanket power setting. The higher the number, the smoother the transition it is, to the top speed. The default is 12.

Use the **+** and **–** to select the PAS setting and then the **i** button to confirm the selection.

Press the – button for the next selection.

DRIVE – The E-BikeKit has three drive settings. The default is P/T Override.

- **P/T OVERRIDE** – Pedal Assist (P) is always on and Throttle (T) overrides. So if you are using pedal assist and then the throttle, the throttle will override the pedal assist.
- **THROTTLE ONLY** – Throttle will work but not pedal assist.
- **PAS ONLY** – PAS will work but not throttle.

Use the **+** and **–** to select the drive preference and then the **i** button to confirm the selection.

Press the – button for the next selection.

LCD LUMINANCE – The dsiplay will become brighter or darker with 100% being the brightest and 10% being the darkest. The default is 100%.

NOTE: *E-BIKEKIT DOES NOT HAVE A HEADLIGHT. THE*  *REPRESENTS LUMINANCE ON THE DISPLAY. THIS SENSOR WILL SENSE, HOW MUCH OR LITTLE LIGHT IS PRESENT AND IT ADJUSTS THE DISPLAY. YOU HAVE THE OPTION TO INCREASE OR DECREASE THE BRIGHTNESS.*

Use the **+** and **–** to select the luminance setting and then the **i** button to confirm the selection.

Press the – button for the next selection.

TRIP RESET – If you need to clear a trip. Use the **+** and **–** to select the yes or no and then the **i** button to confirm the selection.

Press the – button to go back to the main screen.

NOTES:_____

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LCD ERROR CODES

7 TROUBLESHOOTING ERROR CODES

These error codes will display in the speed section of the LCD.

If you don't see an error code listed, please call 1-866-882-3245 or e-mail us at support@ebikekit.com

ERROR CODE	DEFINITION	CAUSE
01	Motor Connection/Halls	▪ Motor cable isn't plugged in all the way. ▪ Bent pin or damaged wire on the motor cable.
02	Throttle Issue	▪ Bent pin on the 4-to-1 (or 3-to-1 E-TrikeKit) wire.
03	Controller Issue	▪ Bent pin on the 4-to-1 (or 3-to-1 E-TrikeKit) wire.
04	Low Voltage Issue	▪ Damaged motor cable (short circuit). ▪ Controller or motor problem.
05	Phase Issue	▪ Motor cable isn't plugged in all the way. ▪ Current is too low for conditions.
06	Torque Issue	▪ Controller or motor problem or bent pin.
07	Communication Issue	▪ Controller or motor problem or bent pin. ▪ 4-to-1 (or 3-to-1 E-TrikeKit) accessory cable or controller may be damaged.

TROUBLESHOOTING

PAS TROUBLESHOOTING

A correctly installed PAS will work when you pedal forward and the red light on the PAS sensor will blink, when a magnet passes it. (See photo 9.1)

Photo 9.1

- ***IF THE RED LIGHT DOESN'T BLINK***
  The sensor is not aligned with the center of the bottom bracket (spindle) or it's not aligned with the magnets in the disc.
- ***IF THE LIGHT ONLY BLINKS, WHILE PEDALING BACKWARDS***
  The disc or sensor is backwards. The correct mounting is on the left side of the bike with the disc label, "working surface" is facing the sensor. The sensor is pointing at the center of the bottom bracket spindle.

KIT TROUBLESHOOTING

NOTE: *Follow these instructions, to find out what is wrong with your e-bike or trike. After each step, test ride the e-bike and see if it's fixed. If the problem wasn't solved, continue on with the next suggestion and test ride the e-bike and so on.*

Unplugged – Unplug everything, one at a time and re-plug it back in. Sometimes a plug can be loose and cause an error code.

Photo 10.1

Bent Pins – Check for bent pins by shining a flashlight into the plug. Also look for a tell-tale scratch on the female plug showing a pin was not aligned correctly. A bent pin can be hard to spot because it only has to bend a little to be a problem. (See photo 10.1)

Broken Wires – If you can see worn insulation, cuts, or gouges, you may need to replace a wire that has been damaged.

Throttle – Each kit ships with both a thumb and a split-twist throttle. Swap the other one in and see if the kit runs. If the kit works, then the throttle might be the problem. (See photo 10.2)


Photo 10.2

TROUBLESHOOTING

Photo 10.3

E-Brakes – If you're using our E-Brakes on your bike/trike and the lever gets stuck open, the motor will be shut off. (See photo 10.3)

Disconnect E-Brakes – A bad switch in the E-Brakes could shut the motor off.

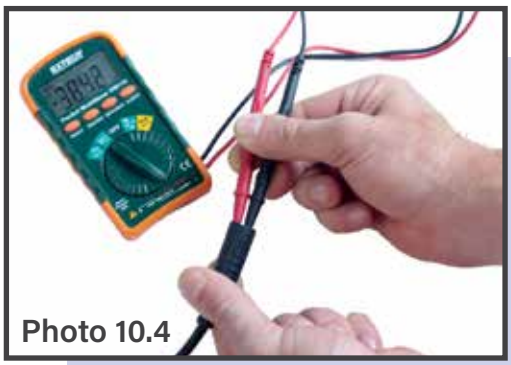
Photo 10.4

Battery Voltage – Test the battery with a multimeter. Be very careful not to short the red and black wires together. 48v batteries should measure at least 47v. (See photo 10.4)

E-BikeKit®
Electric Bicycle Conversion Kit

Customer Support – If none of these suggestions are working, then call us at 1-866-882-3245 or email us at support@ebikekit.com

NOTES:_____

MAINTENANCE

All bicycles require regular maintenance to ensure safety and performance. Electric bikes require more care since they are ridden further and faster than a conventional bike.

This schedule is recommended to ensure that your E-Bike and E-TrikeKit remains safe and reliable. If you're not comfortable performing this maintenance, then you should visit a bike shop for assistance or call us at **1-866-882-3245** and we'll find you a bike shop that can help.

WHEEL TUNE-UP

- **First 50-100 Miles** – Should be tuned up by a bicycle mechanic. The first 50-100 miles of a wheel's life will stretch and settle.
- **Every 3 Months or 400 Miles** – The wheel's should be serviced again by a qualified bicycle mechanic.
- **And Beyond** – The wheels will last much longer and break fewer spokes if they are inspected often.

PRIOR TO EACH RIDE

- **Check Your Wheels** – Especially the hub motor. The spokes should be tight and the wheels should not have any side-to-side play.
- **Check the Frame** – The frame dropouts and torque arm should be tight and secure.
- **Inflate the Tires** – To the recommended PSI. Under inflated tires can cause damage to the rims. Don't add more air than what the tire recommends.
- **Check the Cables, Wires and Brakes** – They are all working correctly. Working brakes are crucial, and the brake cables are just as important. Lift the wheel off the ground and run the throttle. Then squeeze the e-brake lever, to make sure it cuts the power.
- **Check the Battery** – To be secured and that the connections are tight.

AFTER EACH RIDE

- **Turn it Off** – Press and hold the power button, to shut the e-bike off.
- **Check for Damages** – Check the tires, wheels, and frame for any damages.
- **Charge the Battery** – Fully charge the battery after every ride.
- **Clean the Bike** – Don't let the parts and frame get dirty or grimy.

MAINTENANCE

EVERY WEEK

- **Chain** – Clean and oil the chain by using a high quality bicycle chain lube. There are two types of bicycle lube, dry and wet lube. Dry lube is ideal for dry and dusty conditions and it doesn't attract dirt or grime. Wet lube is superior for water resistance and it's ideal for wet weather riding.
- **Bolts** – Check for loose bolts. Bolts may loosen to due to vibration. Here's a list of bolts to check:
  - Rear Rack
  - E-Brake and Brake Levers
  - Brake Cable Anchors
  - Brake Centering
  - Brake Pads
  - Throttle Clamp
  - Shift Lever Mounts
  - Seatpost Clamp

EVERY THREE MONTHS

- **Frame and Fork** – Inspect the frame and fork for paint cracks, blisters, gouges or bulges that might indicate damage to the frame or fork.
- **Components** – Check the seatpost, rack, seat, stem, handlebars, cranks, and brakes, to make sure that nothing is bent or loose.
- **Wiring** – Check the connectors, that they are rust free and don't look burnt or corrisive.

EVERY SIX MONTHS

- **Bearings** – Inspect the bearings in the headset, non-electric hub, pedals, and bottom bracket. These bearings may need to be periodically adjusted, lubricated, and replaced.

Be sure that these items are addressed immediately. Do not ride your bike or trike with loose fastners or damaged components.

TAKE CARE OF YOUR E-BIKE/TRIKEKIT AND IT WILL TAKE CARE OF YOU!

E-BikeKit®
Electric Bicycle Conversion Kit

SPECIFICATIONS

LITHIUM BATTERIES: E-BIKE = B | E-TRIKE = T | BOTH = BT

VOLTAGE/AMP HR CAPACITY	48v 9Ah (BT)	48v 10Ah (BT)	48v 14Ah (BT)	48v 20Ah (BT)
RANGE	10-22 miles (BT)	12-26 miles (BT)	12-26 miles (BT)	20-44 miles (BT)
TOP SPEED Performance 500w Geared	700c: 26 mph (B) 700c: 21 mph (T) 26": 25 mph (B) 26": 20 mph (T) 24": 24 mph (B) 24": 19 mph (T) 20": 23 mph (B) 20": 18 mph (T) 16": 22 mph (B)	700c: 26 mph (B) 700c: 21 mph (T) 26": 25 mph (B) 26": 20 mph (T) 24": 24 mph (B) 24": 19 mph (T) 20": 23 mph (B) 20": 18 mph (T) 16": 22 mph (B)	700c: 26 mph (B) 700c: 21 mph (T) 26": 25 mph (B) 26": 20 mph (T) 24": 24 mph (B) 24": 19 mph (T) 20": 23 mph (B) 20": 18 mph (T) 16": 22 mph (B)	700c: 26 mph (B) 700c: 21 mph (T) 26": 25 mph (B) 26": 20 mph (T) 24": 24 mph (B) 24": 19 mph (T) 20": 23 mph (B) 20": 18 mph (T) 16": 22 mph (B)
TOP SPEED Heavy-Duty 500w Direct-Drive 6x9	700c: 21 mph (B) 700c: 20 mph (T) 26": 20 mph (BT) 24": 19 mph (BT) 20": 18 mph (BT)	700c: 21 mph (B) 700c: 20 mph (T) 26": 20 mph (BT) 24": 19 mph (BT) 20": 18 mph (BT)	700c: 21 mph (B) 700c: 20 mph (T) 26": 20 mph (BT) 24": 19 mph (BT) 20": 18 mph (BT)	700c: 21 mph (B) 700c: 20 mph (T) 26": 20 mph (BT) 24": 19 mph (BT) 20": 18 mph (BT)
WEIGHT	5.8 lbs	9.7 lbs	8.8 lbs	14 lbs
DIMENSIONS	7 3/4" x 5 1/8" x 2 3/4"	15" x 6" x 2.7"	16 1/2" x 4" x 3 1/2"	9 1/2" x 7 1/4" x 3 3/8"
CYCLE LIFE	700-1800 Cycles			
TEMPERATURE	Allow 2 hours to warm up to room temperature before charging.			

LITHIUM CHARGERS

INPUT VOLTAGE	100-240v 50/60Hz
OUTPUT VOLTAGE	54.6v ± 0.2v (48v Charger)
OUTPUT CURRENT	3A ± 0.1A
FULLY CHARGED OUTPUT	0.15A ± 0.1A
SAFETY FEATURES	▪ Short Circuit Protection ▪ Reverse Polarity Protection ▪ Over-Voltage Protection ▪ Over-Current Protection
USAGE	▪ Fast-Charge ▪ Not for Continous Use ▪ Unplug After Charging
CERTIFICATIONS	UL, TUV-GS, CE, KC, SAA, RoHS

E-BIKE & E-TRIKE WHEEL SPEEDS

WHEEL SIZE/MOTOR TYPE	TOP SPEED AT 48V
20"/500w Direct-Drive (BT)	18 mph (29 kph)
24"/500w Direct-Drive (BT)	19 mph (30 kph)
26"/500w Direct-Drive (BT)	20 mph (32 kph)
700c/500w Direct-Drive (BT)	21 mph (34 kph)
16"/500w Geared (B)	22 mph (35 kph)
20"/500w Geared (B)	23 mph (37 kph)
24"/500w Geared (B)	24 mph (39 kph)
26"/500w Geared (B)	25 mph (40 kph)
700c/500w Geared (B)	26 mph (42 kph)

WARRANTY

LIMITED WARRANTY

The E-BikeKit is warranted to the original retail purchaser when purchased directly from an authorized Electric Bike Technologies, Inc. dealer or on the online store, www.ebikekit.com, to be complete and free from defects in materials and workmanship. All Electric Bike Technologies, Inc. product warranties are effective from the date of purchase by the end-user provided the product is purchased in NEW condition.

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 using 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. Electric Bike Technologies, Inc. will not be liable and/or responsible for any damage, failure or loss caused by any unauthorized service or use of unauthorized parts.

HUB MOTORS & PARTS WARRANTY

1 Year Warranty Covers:

- 500w Direct-Drive Hub Motors
- E-BikeKit Lithium Batteries
- Kit, Parts and Battery Chargers

BATTERY PACK WARRANTY

Battery packs are warranted from the date of purchase. A pack will be deemed defective if it fails to deliver 80% on nominal capacity within 6 months of purchase when discharges at 1.5C with a static resistive load following full charge with an approved charger.

WHAT'S NOT COVERED BY THE E-BIKEKIT WARRANTY

SPIN OUT – Spinning out the axles, inside your dropouts. We are unable to be there when the kit is installed, so it's up to you to understand, the high torque involved at the drop-outs and install them correctly. If your dropouts are not correctly suited to fit the axle, then it shouldn't be installed. Get a new fork, 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, that's larger than 48 nominal volts, that 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 48v battery pack. Using a controller with any battery larger than 48 nominal volts will void the warranty for your controller.

WARRANTY

WHAT'S NOT COVERED BY THE E-BIKEKIT WARRANTY

IMPROPER CARE – The battery warranty does not include damage from power surges, improper charger, improper maintenance, other misuses and/or normal wear. Damage caused by water, dropping or any collision is NOT covered under warranty. 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.

WATER DAMAGE – The E-BikeKit battery pack is water resistant (to a certain extent) and fine for use in the rain. The E-BikeKit should be stored indoors and never be left outside in the elements. It should NEVER be submerged in liquids. Damage caused by water, dropping or any collision is NOT covered under warranty.

RENTALS, COMMERCIAL USE, NON-AUTHORIZED & 3RD PARTY SELLERS

The E-BikeKit limited warranty does not cover or apply to any Electric Bike Technologies, Inc. products used for rental or commercial purposes unless the specific product is designated, labeled or marketed by Electric Bike Technologies, Inc. as acceptable for rental or commercial use. All products used for rentals are warranted across the board for a period of 90 days.

The E-BikeKit limited warranty does not cover or apply to any Electric Bike Technologies, Inc. products sold by a non-authorized reseller or retailer.

The E-bikeKit limited warranty does not cover or apply to any replacement, maintenance or accessory parts not sold directly by Electric Bike Technologies, Inc. to the original retail purchaser.

DISCLAIMER

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, Electric Bike Technologies, Inc. disclaims any responsibility for injury, damage or any 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 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 responsibility and observe all federal,state and local laws.

WARRANTY

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 submitting a warranty service request online at www.ebikekit.com within the warranty period. Shipping and 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 excludes all other warranties not expressly set forth herein, 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 Electric Bike Technologies, Inc. hereunder is expressly limited to the replacement of goods complying with this warranty or at the sole discretions of Electric Bike Technologies, Inc. to the repayment of an amount equivalent to the purchase price of the product in question.

NOTES:_____