

Battery Range:

Tips:

- Know that riding your bike with full throttle or in "5 mode" in Pedal Assist will use up the battery more quickly than if you apply less throttle or ride in a lower pedal assist speed mode.
- If you are riding over 40 miles in one trip, use a lower pedal assist mode or pedal harder using throttle mode. This will assist the battery and extend your range by many miles.
- If you are on a long trip and the battery gets low and cuts off as you are riding, ease off on the throttle and it will come back on after a few seconds. If you ease off on the throttle or move down to 1 mode in pedal assist, you will get a few more miles of riding out of the battery.

Factors that Affect Range:

- State of your Battery Charge
- Mode Setting: the bike will use less power in pedal assist mode due to the required contribution of the rider
- Tire inflation pressure
- Adjustment of the wheel bearings and brakes: tight bearings or a dragging brake will adversely affect range
- Rider Weight
- The speed at which you travel, and local wind conditions.
- Terrain (road surface and hills): traveling on a soft surface, such as dirt or gravel, or climbing a hill uses energy faster
- Many starts and stops: full power from a standing start draws the most amperage from the battery

How to Maximize Your Range:

- Fully Charge your battery before each ride
- Ride in pedal assist mode and pedal as much as you feel comfortable doing – the more you pedal the further the battery will take you Check your tire pressure regularly and inflate the tires to the maximum pressure printed on the tire sidewalls
- Have your bicycle serviced periodically to ensure that the bearings run freely and the brakes do not rub the rims (or the rotors for the disc brakes) when they are not applied
- Minimize the weight that you carry
- Ride at slower speeds
- Accelerate gently. Assist the system by pedaling as you accelerate to your cruising speed

- **IMPORTANT NOTE:** As your battery ages, it will gradually lose capacity. With proper care and maintenance, your lithium ion battery will retain up to 70% of its capacity for at least 500 discharge/recharge cycles. As capacity diminishes, you will notice a gradual drop off in max range capability. When range falls to an unacceptable level, contact your EBC dealer for information regarding purchasing a new battery.

Battery:

- Our EBC batteries are of the highest quality. They are equipped with Smart Chargers and Smart BMS (battery management system) to ensure the battery will last as long as possible. You can expect your EBC battery to last at least 3 years, but closer to 5-8 years, depending on extent of use.



WARNING:

- Failure to properly use, charge, and store your battery as instructed will void the warranty and could cause a hazardous situation. Before using your battery for the first time, read this section of the manual in its entirety.
- If you have any questions about your EBC battery or its usage, please contact a member of our EBC Team at 949 636 3001 for additional instructions and guidance.

Charger Indicator and Meaning:

| Charge Indication LED | STATUS | MEANING |
|-----------------------|-----------------|---|
| Flashing Amber | Pre-Charge | Charger is pre-conditioning the battery |
| Steady Amber | CC Mode | Charging at constant Current |
| Flashing Green | CV Mode | Charging at constant voltage (battery approx. 80% full) |
| Steady Green | Charge Complete | Battery is fully charged |
| Flashing RED | Abnormal | Battery is not being sensed properly |

What To Do When You First Purchase Your New EBC battery:

- Batteries are not shipped with a full charge. You should charge your battery for at least 4-5 hours with a super external charger or for at least 10 hours with the internal charger.
- The EBC battery is equipped with a five-minute sleep function. If no activity is detected, the bike will go into "statis" mode to conserve battery power. Simply cycle the bike off then on again to reactivate the battery.
- The rated output capacity of the battery is measured at 77 degrees Fahrenheit. Any variations in this temperature will alter the performance of the battery. Keep your battery away from high temperatures especially; heat will reduce overall battery life and run time.
- No "break in" period is necessary for our batteries – simply fully charge the battery before first use.

Internal Battery Charging:

- The EBC battery may be charged while remaining on the bike or removed and charged at another location. The battery is easily removed by turning the key switch to the open/unlock position, grasping the rear of the battery, and sliding the battery to the rear of the Electric Bike Company Bike.
- To charge the battery, plug the charger into the AC outlet. The LED indication light should be green showing the charger is working normally.
- Then plug the charger into the charging port located on the bottom of the battery by sliding open the charger cover (Figure 1) or lifting the handle (Figure 2) and inserting the plug.

Charging with External Super Charger:

- Simply plug external battery cord into 110v house hold outlet.

Safety Guidelines for Charging:

- Charge your bike indoors whenever possible. Charge your battery during the day in a room which has a smoke or fire detector. Do not charge in your bedroom.
- During the charging process, place the battery on a non-flammable surface or leave in the main sleeve.
- Charge in a well ventilated area. Keep away from flames and sparks.

- Avoid any contact with water or other fluids while charging. If the battery, charger or any connections become wet, immediately unplug the charger and thoroughly dry all components.
- Never use the internal charger after riding in the rain – wait at least 24 hour before using the internal charger.

After Charging:

- External Super Charger:
 - Disconnect the power cord from the wall, or from the back of the charger
 - Disconnect the charge cord from the battery pack
- Internal Charger:
 - Unplug from the 110V plug
 - Allow retractable cord to retract back into battery while keeping a little tension so it goes all the way in
 - Remember to keep cord level and do not twist cord. If the cord gets twisted it will not retract – if this happens, untwist and try again
 - If the cord does not retract, call your dealer and do not ride your bike

Battery and Charger Care

- Your EBC Bike Battery comes standard with a Smart Internal Charger (uses best possible charging techniques to ensure longevity of the battery). The external charger will charge a fully depleted battery in 5-6 hours – while the internal charger will charge it within 12-14 hours. The indicator light on the charger will be red/orange when battery is charging and will turn green when fully charged.
- Avoid subjecting the battery to high temperatures, such as directly under the sun, for prolonged periods of time. Recharge the battery before it becomes completely discharged. Completely discharging will reduce the numbers of recharging cycles during the battery's life and limit the capacity.
- Never store the battery in the discharged state. After much use, your battery's charge-holding capacity will decrease. If you find that your battery does not hold a sufficient charge, you should contact your local dealer to order a replacement.
- If the battery will not be used for an extended period of time, charge it fully and recharge it every 2 months. Store it in a cool, dry place.

- Your Electric Bike Company battery is engineered with precision for high capacity and a long, useful life. Do not use it to power other electrical devices. Improper use of the battery will damage the battery and shorten its useful life and may cause fire or an explosion. If you experience unusual sounds or odors coming from the charger or the battery, unplug charger immediately and contact Electric Bike Company customer service.

Trouble shooting:

- Does Not Illuminate:
 - Make sure your wall socket is working. Check the charge power cord. If the charger still does not work, it may need to be repaired or replaced. Do not attempt to open the charger case. Even if the charger is unplugged, you could still be injured by an electrical shock.
- Flashes Red:
 - Make sure the charger is fully plugged into the battery. Unplug the charger from the wall and from the battery. Wait about 10 seconds, then connect to the battery, followed by the wall outlet. If the indicator LED still flashes red, there may be a problem with the battery or the charger.
- Flashes Amber:
 - The battery voltage is low, and the charger is attempting to raise it back to normal voltage with a low current charge. Leave the charger connected to the battery. IF the indicator still flashes amber after a few hours, the battery may be damaged beyond easy repair.
- Flashes amber, then immediately to solid green
 - No issue: the battery is fully charged

Battery Maintenance & Safety:

- Improper use of the battery charger can cause a fire resulting in severe injury or death and property damage. Please review the following instructions and guidelines carefully to ensure safe battery use and maintenance.
- If you are not going to use your battery for a while, fully charge the battery prior to turning it off. Be sure to turn on and charge your battery every 3-4 months to ensure it never completely loses its charge.

- The battery will get hot to the touch when charging, which is normal; however, if you smell or see any smoke – turn the battery and charger off and unplug anything attached to the battery. Call your dealer or EBC to obtain a diagnosis or a replacement.
- After a ride, fully recharge your battery as soon as it has cooled to room temperature. If battery is left in a discharged condition it will deteriorate much faster than a fully charged battery.
- Do not block the fan vent on the battery pack or external charger. This can cause overheating and fire.
- You should protect the battery from water and other moisture at all times. Never submerge your bike or battery in water, or even spray battery with water.
- Keep riding in the rain to a minimum – no more than 5 minutes per day.
- Never use the external charger for more than 12 hours or the internal charger for more than 24 hours.
- Only use the internal charger or the external charger supplied with this bike – never ever plug on another charger. Even if it is physically possible to connect another type of battery, it is dangerous (fire hazard) and may damage other components of the bike.
- DO NOT use this battery with any other vehicle or appliance. Use of this battery with any other product will void the warranty, and may create a hazardous condition that could cause a fire, resulting in severe injury, death and/or property damage.
- Never disassemble the battery or open the battery case. There is a significant risk of electric shock and damage to the battery. This will also void the warranty.
- Never short-circuit the discharge terminals of the battery. A short circuit will damage the battery and could cause a fire resulting in severe injury death, and/or property damage. When handling the battery, be aware of conductive materials that may short the battery terminals such as coins, nails etc.
- Never crush or puncture the battery. A punctured or crushed battery could catch fire causing a fire or explosion with could lead to serious injury, death and/or property damage.
- Keep battery away from excessive heat (104 degrees F or higher) or open flames. Avoid long-term exposure to direct rays from the sun.

- Protect the battery from materials that may contaminate the charge port or the output port, such as dirt and sand; the ports may be difficult or impossible to clean out.
- Never subject the battery to intense physical shock or severe vibrations.

Battery Transport:

- Lithium Ion batteries are subject to many regulations, and are often considered dangerous or hazardous materials by carriers. Be sure to check for relevant laws, and ask the carrier for approval prior to shipping a lithium-ion battery, or transporting it by air.

Battery Disposal:

- Be friendly to the environment. Be sure to recycle your old batteries at a local battery-recycle center. Do not throw them in the garbage. Visit www.call3recycle.org for more information.

Fuse

- The fuse is designed to protect the battery. If the fuse blows, there will be no power to any of the electrical components powered by the battery. You can replace the fuse with a standard automotive 40 amp fuse or contact Electric Bike Company customer service at support@ElectricBikeCompany.com.

Photo

Figure 1

Photo

Figure 2

The fuse is located on the bottom of the battery, between the charging port and the On/Off switch (Figure 1).

Gears

- Your Electric Bike comes with a 5 level-gear motor. A complimentary 7-speed adaption kit is supplied should you require additional gears.
- Should you decide to install the 7 speed kit – then:
 - First gear is for easier and uphill pedaling, and the last gear is for maximum speed on level or downhill terrain.
 - Change gears only while pedaling.
 - The rear wheel contains seven chain sprockets. When the chain is around the largest sprocket, you are in 1st gear, or the lowest gear.

The high gear will have the derailleur positioned so that the chain is directed around the smallest gear.

- Every position on the gear selector should cause a gear change.
- Adjustments require fine tuning and should only be made by a qualified technician.
- Avoid changing gears very rapidly from first gear to the last gear, or vice versa. If you change multiple gears too quickly, the chain may come off the front sprocket.