SAFETY GUIDELINES FOR LITHIUM-ION BATTERIES

The following can help to alleviate any risks associated with handling lithium-ion batteries. To minimize the risk of fire, explosion, or personal injury, please follow these guidelines:

▶ **ALWAYS** follow the manufacturer’s instructions for charging and storage. Only use the original manufacturer’s battery, cord and power equipment to charge the lithium-ion battery.

▶ **ALWAYS** plug the lithium-ion battery directly into a wall outlet. **NEVER** use power strips, or extension cords to charge your lithium-ion batteries. **DO NOT** stack or cluster the lithium-ion batteries together while charging or storing. Charging multiple batteries with inadequate electrical support is a major safety hazard.

▶ **ALWAYS** charge the lithium-ion battery at room temperature. If the battery is still warm from usage, allow time for the battery to cool before charging. **DO NOT** charge the lithium-ion battery at temperatures below 32°F (0°C) or above 105°F (40°C).

   - After riding in cold weather, bring the battery indoors to warm up for two hours at room temperature before charging.

▶ **ALWAYS** store your lithium-ion battery in a well-ventilated area that has a fire detection system. **AVOID** excessive sun exposure, water, humidity, and/or condensation. **KEEP** the lithium-ion battery away from any heat source or anything flammable materials, such as paper, under or on a pillow, bed or a couch.

▶ **ALWAYS** monitor the battery and charger when charging. **NEVER** leave it unattended or overnight. **DO NOT** keep charging the lithium-ion battery after it is fully charged.

▶ **DO NOT** stack or cluster the lithium-ion batteries together while charging or storing. Charging multiple batteries with inadequate electrical support is a major safety hazard.

▶ **DO NOT** use the battery or charger if your battery has been damaged, punctured, burned, been smoking, or has been on fire. Inspect the battery and charger before and after each use.

▶ **NEVER** block your exit from your home or a room with a charging lithium-ion battery. **ALWAYS** make sure that there’s a safe way to exit your home in the event that there’s an issue with an lithium-ion battery.

▶ **NEVER** try to modify or service your e-bike and/or trike’s battery system. Batteries are part of a larger system with the e-bike and/or trike. It’s not just the battery but also the sensors, motor, controller, and other components. Altering a component within the system can impact the safety of the system, which can result in severe injury and/or death.

▶ **NEVER** use a battery if it shows signs of physical or mechanical damage such as change of shape, discoloration of the battery’s shell, leaking, odor, sign of corrosion, odd noises, loose or damaged wires, and/or known conditions of use or misuse.

▶ **NEVER** place a lithium-ion battery in the trash or in a recycling bin, it is illegal. **DO NOT** put discarded batteries into piles. To properly dispose of lithium-ion batteries, take them to a battery recycling location or contact your local waste management service provider for disposal instructions.

**TRANSPORT**

▶ When transporting an electric bike and/or trike’s battery, it should not be left on the bike and/or trike. The battery must be removed and placed inside your vehicle. It’s also important, not to leave the battery inside a hot vehicle. These temperatures and weather conditions can result in poor charging ability and possibly cause a fire, explosion, injury, or death.

**FIRE AND EMERGENCIES**

▶ Fire extinguishers do not work on lithium-ion batteries fires. If you observe a lithium-ion battery fire, leave the area, **CLOSE** the door, and **CALL 911** immediately.

▶ Damaged or unstable batteries and improper charging, storage or disposal can cause the batteries to overheat, leading to an explosive, aggressive fire that spreads rapidly, can reignite and is challenging to extinguish.

▶ Lithium-Ion battery fires are very dangerous. Water may not prevent a battery from burning and spreading. Battery cells are known to explode and quickly spread to another battery. It can spread to other devices.

▶ These batteries may continue to generate heat even when there is no visible sign of fire. Once heat reaches a certain level fire may reignite on the battery and surrounding area.

▶ Reignition of lithium-ion batteries is common. Lithium-Ion batteries are known to unexpectedly reignite (without warning) minutes, hours and even days after all visible fire has been put out.

▶ Lithium-Ion batteries can enter an uncontrollable, self-heating state. This can result in the release of gas, cause fire and possible explosion.