

Facts regarding Bosch, Fauza, Mahle, Shimano and Yamaha electric bicycle motors and batteries:

- These brands are built to standards recommended by the CPSC (Consumer Products Safety Commission) and have obtained third-party NRTL (Nationally Recognized Testing Laboratories) certification and are compliant with several voluntary CPSC and UL (Underwriters Laboratories) standards including UL2849. Being UL2849 compliant means meeting constructional and test requirements for preventing electrical fires, fire, and shock hazard.
- UL2849 has robust functional safety requirements for battery packs and battery management systems, and it addresses risks associated with the other components of the e-bike system. Certification includes a detailed evaluation and testing of the drive unit, display, interconnecting cables and connectors, electrical accessories, battery system and charger system combinations.
- Standards such as UL2849 are essential to ensuring safety through the thousands of cycles of charges and discharges. Testing and validating the safety of battery packs and battery management systems is needed to minimize the risk of fire and electric shock.
- Certification of this standard requires an investment of both time and money. Consequently, only a limited number of suppliers have taken these efforts. Those suppliers include: Bosch, Fauza, Mahle, Shimano and Yamaha.
- Each of these suppliers also participates in a national e-bike battery recycling program. The fees associated with this program is \$35 per battery.

**Trailhead only sells Electric Bicycles that meet
UL2849 Standards**