Technical Service Bulletin

Cobra Moto, LLC
240 Uran Street
Hillsdale, Michigan 49242
(517) 437-9100 phone
(517) 437-9101 fax

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TSB0525 Lithium-Ion Battery Safety

E-bikes powered by lithium-ion batteries in New York City accounted for 267 fires in 2023, 18 deaths, and 150 injuries, according to the Fire Department of New York (FDNY). In fact, in the past three years, lithium-ion battery fires have replaced electrical fires as the leading cause of fatal fires in New York City, surpassing blazes caused by cooking and smoking. https://www.senecainsurance.com/lithium-ion-battery-fires-on-the-rise-destroying-properties-taking-lives/

When not preparing for a race, store the battery with partial charge (2 lights lit, not 3, only the red "S" light and orange "V" lights lit), and away from heat sources.

Store and charge your Cobra CX-E in a place where a fire would cause the least harm.

Additional best practice guidelines below:

- Tampering with the battery, charger, and/or electronics of the motorcycle would be jeopardizing safety.
- Do NOT use Electrolytic Grease or other contaminates on the battery power connector terminals.
- Fully charge the battery **only just prior** to using it.
- Battery / bike Storage (2 lights of charge as stated above)
  - Not in direct sunlight, temperature between 32°F – 110°F (cooler better)
  - Keep away from other heat sources that allow the surface to be 'hot' to the touch (115°F)
- Transportation of batteries to protect against shock or impact (2 lights of charge):
  - Batteries are best transported in the motorcycle, covered with a Lithium – Ion fire suppression blanket and protected from contact with other items. https://brimstonefireprotection.com/
  - Batteries not in the motorcycle should be kept in a container (2 lights of charge):
    - Lithium-Ion safe battery case for 1 kWh capacity (in case of energy release). https://www.denios-us.com/lithium-ion-transport-box-M2921000/M292100
    - Or minimally an impact absorbing case to avoid sliding, dropping, or impacts during transport. (This will not contain spontaneous energy release but will protect it from unintended impacts. Available soon from Cobra.
- Clean the battery pack by hand – NOT WITH PRESSURE WASHER.
- When cleaning the battery outside of the bike (recommended) install connector sealing covers to avoid contamination of the terminals.
- A battery that has been dropped or has crash damage should be isolated to a safe location (assume it could ignite at any time). Keep isolated and call Cobra tech ASAP 517 437 9100.
  - Signs of internal heat, escaping smoke, or hissing noise – get away fast, otherwise,
  - Does the housing appear compromised (dent, crack, etc..)?
  - Will the battery pack power up?
  - What is the state of charge?