



ENTERTAINMENT ELECTRICAL SAFETY ASSOCIATION

Usage of Portable Batteries Not Exceeding 24 V and 24 Ah

With the large influx of batteries being utilised in the entertainment industry, including camera and lighting power as well as communication systems such as wireless microphones and walkie talkies, this guideline will assist in keeping your battery-supplied DC power sources safe in both the charging and utilisation stages. There have been several instances of components damaged due to incorrect charging of batteries. (See attached pictures below).

Charging System

- a) ***The charging system must bear an electrical approval mark that is recognized by the local AHJ, as required for any piece of electrical equipment,***
- b) Consult the manufacturer's operational manual before using the battery system.
- c) Charge only batteries specified by the manufacturer, for usage with the specific battery charger or charging system.
- d) **Adhere to the manufacturer's limitations on charge times for each battery and charger.**

Charging Area

- a) ***The charging area must be dry and have a non-flammable surface.***
- b) There should be no flammable materials in proximity to the batteries and chargers.
- c) Ensure that the area is adequately ventilated and,
- d) Ensure sufficient room for appropriate spacing between batteries while being charged.
- e) If cabinets are used:
 - i) any electrical entry/installation shall comply with the CE Code Part 1 and bear an electrical approval marking, and;
 - ii) shall be ventilated to limit internal temperature rise, incorporating louvres designed to provide convection air flow or incorporate cooling fans, or both.

Power Distribution for Chargers:

- a) Power to multiple chargers must be from approved multiple outlet devices, such as linear multi-outlet strips.
- b) Battery chargers must not be plugged into multiple (daisy-chained) extension cords.
- c) Power bars shall not be plugged into another power bar (daisy-chained).

***Refer to EESA Approval Marks Bulletin for
Certification and Field Approval marks.***

Example: batteries overheated during charging.

