



Battery Safety

Lithium Rechargeable (Secondary)

Lithium-ion is now commonly used as a generic term for any cell that uses lithium for its active material. This includes Lithium-ion (Li-Ion), Lithium Iron Phosphate (LiFePO₄) & Lithium Polymer (Li-Poly) cells. Below are some tips to follow when dealing with Lithium-ion batteries.

THE 4 GOLDEN RULES

- 1.** If your battery gets unusually hot to touch, let it rest.
Lithium-ion cells contain flammable chemicals. If the battery is mishandled, it may have a thermal runaway. This could involve smoke, fire or an explosion.
- 2.** Do not exceed your battery's maximum continuous discharge rating.
Each of the Lithium-ion classes have been designed to meet specific drainage applications. Check your product's data sheet to ensure you do not exceed your battery's maximum continuous discharge rating.
- 3.** Be careful not to short-circuit your battery.
Do not place a battery in your pocket or somewhere where it may come in contact with conductive surfaces.
- 4.** Use only cells that have a PCM incorporated.
Always use a Lithium-ion cell that has an integrated Protection Circuit Module (PCM). This circuit protects for over charge, over discharge, over current/short circuit and over heating. Protected batteries are less likely to have thermal runaway and cause personal or property damage.

SAFETY PRECAUTIONS

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|  | 1. CHARGING
Read both the device and charger manual before use ensuring the correct chemistry and capacity is used.
<u>NEVER LEAVE UNATTENDED.</u> |  | 10. RUST, COLOUR CHANGE
Stop using battery if there is abnormal smell, heat, deformities or discoloration. |
|  | 2. HIGH TEMPERATURE
Avoid using or placing batteries in direct sunlight or in temperatures greater than 60°C. This includes microwaves and cooking appliances. |  | 11. MIXED USE
Do not mix brands, chemistry or capacities. |
|  | 3. IMMERSION
Do not immerse the battery in liquid. |  | 12. DISASSEMBLY & RECONSTRUCTION
Battery packs should only be assembled by factory authorised and qualified personnel. |
|  | 4. FLAMMABLE MATERIALS
Avoid charging or discharging near flammable materials. |  | 13. SOLDERING
Do not directly solder to the battery. |
|  | 5. CHARGING TEMPERATURE
The charging temperature range is regulated between 5°C and 45°C. |  | 14. LEAKAGE ON SKIN
If leakage gets on skin or clothing, flush with water to help prevent irritation. |
|  | 6. REVERSE POLARITY
Make sure the + and - poles are oriented correctly. |  | 15. STORING
Store in a cool dry place. |
|  | 7. SHORT-CIRCUIT
Do not connect the + and - terminals with conductive material. |  | 16. CHILD SAFETY
Keep out of reach of children. |
|  | 8. IMPACT / PENETRATION
Do not penetrate or impact the battery case. |  | 17. TRANSPORT
Follow all national transport guidelines. |
|  | 9. DEFORMATION
Do not use a battery with conspicuous damage or deformation. |  | 18. RECYCLE
Recycle used batteries at local battery drop-off points or contact place of purchase. |