

# LITHIUM-ION BATTERY SAFETY

## CHARGE INTO SAFETY

SMART CHARGING FOR A SAFER FUTURE.

Lithium-ion is the most popular rechargeable battery chemistry used today because these batteries are low maintenance and can store a lot of energy in a small space. While convenient, it comes with a downside. If the battery is defective or used incorrectly, the energy might be released suddenly in an uncontrolled manner that generates heat, which can turn certain internal battery components into flammable and toxic gases and fuel extremely hot fires.

## BASICS OF LITHIUM-ION BATTERY SAFETY

**Temperature:** Keep batteries at room temperature when possible.

**Charging:** Do not keep charging after the device is fully charged.

**Storage:** Store batteries and devices away from anything that can catch fire.

**Usage:** Only use the battery that is designed for the device.

## HOW DO FIRES START

Lithium-ion battery fires happen for a variety of reasons, such as: physical damage (the battery is penetrated), crushed, or exposed to water, electrical damage (overcharging or using charging equipment not designed for the battery), exposure to extreme temperatures, or product defects. Following battery safety guidelines and inspecting for damage can reduce the risk.





**ABOUT 90% OF  
RECHARGEABLE  
BATTERIES ARE  
LITHIUM-ION.**

## **SIGNS OF A DANGEROUS BATTERY**

Stop using the battery if you notice these problems:

- Odor
- Change in color
- Too much heat
- Smoking
- Change in shape such as swelling, cracks, or leaking
- Odd noises or popping sounds

## **BATTERY DISPOSAL**

Lithium-ion batteries and the devices that contain them should not go in household garbage or recycling bins. They should be taken to separate recycling or household hazardous waste collection points. Many stores that sell large quantities of lithium-ion batteries have a recycling program where you can return the batteries.

**CHARGE SMART,  
CHARGE SAFE.**