

# Lithium-Ion Battery Safety Tips

Lithium-ion batteries are reactive and hold more charge than traditional batteries. They can easily spark and cause a fire, particularly when damaged or improperly charged. If the battery casing breaks, and the contents are exposed to air, the battery can ignite and burn at a very high temperature. Battery safety precautions are more important than ever for protecting homeowners and businesses, as well as the recycling and disposal infrastructure.



## Before You Buy

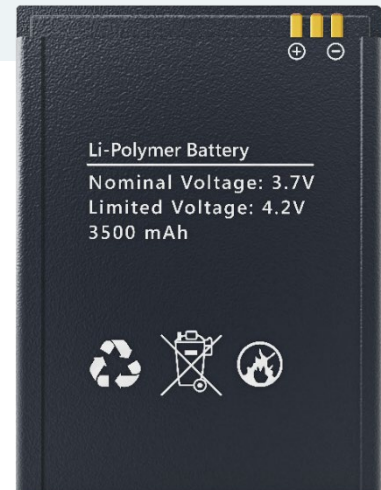
- See if there is a recall for the product you are considering purchasing, by searching the U.S. Consumer Product Safety Commission's Website at [saferproducts.gov/PublicSearch](https://www.saferproducts.gov/PublicSearch).
- Look for a Nationally Recognized Testing Laboratory (NRTL) stamp on the packaging and product. The stamp identifies the product was tested and certified by a laboratory recognized by the U. S. Occupational Safety and Health Administration. See [osha.gov/nationally-recognized-testing-laboratory-program/current-list-of-nrtls](https://www.osha.gov/nationally-recognized-testing-laboratory-program/current-list-of-nrtls) for examples of NRTL stamps.
- Find a recycling option for the equipment **before** you purchase. Check with your favorite retailers and manufacturers to see if they offer free recycling to customers. Some known to offer options include [Lowes](#), [Batteries Plus](#), [Staples](#), and [Best Buy](#).

## Safety During Charging

- Only use the charging equipment (e.g., chargers, batteries, power cords, and/or power adapters) provided by or recommended by the manufacturer for the device, and make sure it has the NRTL stamp.
- Only replace charging equipment with manufacturer approved equipment that has an NRTL stamp.
- Do not charge a battery or device on a pillow, bed, or couch.
- Do not overload outlets by using multiplug adapters or power strips – instead plug directly into an outlet.
- Store batteries and devices at manufacturer recommended temperatures, away from heat sources and flammable materials.
- Do not overcharge e-bikes or e-scooters and do not charge them overnight or unattended.
- If e-bikes or e-scooters must be stored indoors, keep them away from doors or windows that can serve as exits.

## End of Life Battery Handling

- ⚡ Regularly recycle your electronic devices and lithium-ion batteries.
- ⚡ Do not place lithium-ion batteries or electronic equipment containing lithium-ion batteries in the trash or in recycle bins - they can ignite in the truck, at the recycling center, or the landfill, and harm workers, vehicles, and infrastructure.
- ⚡ Check with the device manufacturer for recycling options for the battery(s) especially for e-bikes, battery powered lawn equipment and portable home power banks.
- ⚡ Locate a collection site in your community. Households are encouraged to use the retail collection option identified at the time of purchase or see the EGLE Web page at [Michigan.gov/EGLEHHW](https://Michigan.gov/EGLEHHW) to find a county or municipally collection. Businesses are encouraged to see the [list of vendors](#) that assist with hazardous waste collection. Other search options include looking at the list of registered e-waste [manufacturers](#) and e-waste [recyclers](#) at [Michigan.gov/EGLEEWaste](https://Michigan.gov/EGLEEWaste), searching the Recycled Materials Market Directory at [Michigan.gov/RMMD](https://Michigan.gov/RMMD), or the Michigan Recycling Directory at [Michigan.gov/RecyclingDirectory](https://Michigan.gov/RecyclingDirectory).
- ⚡ Place tape over battery ends and terminals to help prevent sparking and potential fires, assisting with safe end of life storage and transport.
- ⚡ Keep batteries in their original device when possible, until it is recycled, and be prepared to recycle the battery separately if the collection only accepts the electronic device.
- ⚡ If a battery overheats, shows a change in shape or color, or exhibits an odor or odd noises, discontinue use and recycle it after placing it in a fireproof container – consider submerging it in cat litter or soil in a plastic bucket, and store it outside, if necessary.
- ⚡ There are commercial container kits available for businesses to purchase and have on hand for use in managing damaged, defective, and recalled (DDR) batteries that are highly recommended.



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