

Lithium-Ion Battery Safety



Lithium-ion batteries supply power to many kinds of devices including smart phones, laptops, e-scooters and e-bikes, e-cigarettes, smoke alarms, toys, and even cars. If not used correctly, or if damaged, these batteries can catch on fire or explode.

The problem

- These batteries store a large amount of energy in a small amount of space.
- Sometimes batteries are not used the right way; batteries not designed for a specific use can be dangerous.
- Like any product, a small number of these batteries are defective. They can overheat, catch fire, or explode.

Safety Tips

- Purchase and use devices that are listed by a qualified testing laboratory.
- Always follow the manufacturer's instructions.
- Only use the battery that is designed for the device.
- Put batteries in the device the right way.
- Only use the charging cord that came with the device.
- Do not charge a device under your pillow, on your bed, or on a couch.
- Do not keep charging the device or device battery after it is fully charged.
- Keep batteries at room temperature when possible. Do not charge them at temperatures below 32°F (0°C) or above 105°F (40°C).
- Store batteries away from anything that can catch fire.

Signs of a Problem

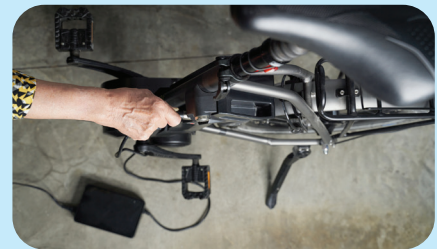
Stop using the battery if you notice these problems: odor, change in color, too much heat, change in shape, leaking, or odd noises. If it is safe to do so, move the device away from anything that can catch fire. Call **9-1-1**.

Battery Disposal

- Do not put lithium-ion batteries in the trash.
- Recycling is always the best option.
- Take them to a battery recycling location or contact your community for disposal instructions.
- Do not put discarded batteries in piles.

Charging an E-bike

Charge your battery in a flat, dry area away from children, direct sunlight, liquids, tripping hazards, and in a location where the e-bike is not at risk of falling.



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E-Bike and E-Scooter Safety

The popularity of electric bikes and electric scooters (e-bikes and e-scooters) has taken off over the past few years. Lithium-ion batteries are usually the source of power for both, and if not used correctly, or if damaged, those batteries can catch on fire or explode. Whether you use e-bikes or e-scooters as your main way of getting around, or just for fun, there are important safety tips to keep in mind when charging or storing these devices.

The Problem

- Damaged or defective batteries can over-heat, catch fire, or explode.
- Lithium-ion battery fires give off toxic gases and they burn extremely hot.

Safety Tips

- Only purchase and use devices, batteries, and charging equipment that are listed by a nationally recognized testing lab and labeled accordingly.
- Always follow the instructions from the manufacturer.
- Only use the battery and the charger that were designed for, and came with, the device.
- Do not keep charging the device or device battery after it is fully charged.
- Only charge one device or device battery at a time to prevent overloading the circuit.
- Keep batteries at room temperature when possible. Do not charge them at temperatures below 32°F (0°C) or above 105°F (40°C).
- Do not store batteries in direct sunlight or inside hot vehicles, and keep them away from children and liquids.

- Store e-bikes, e-scooters, and batteries away from exit doors and anything that can get hot or catch fire.
- Only have device repairs performed by a qualified professional.
- Do not put lithium-ion batteries in the trash. Recycling is always the best option. Take the batteries to a battery recycling location or contact your local waste department for disposal instructions.

Signs of a Problem

Stop using the e-bike or e-scooter if you notice any of these problems with the battery: unusual odor, change in color, too much heat, change in shape, leaking, smoking, or not keeping a charge.



If you see a fire ...



Leave the building immediately.



Don't try to fight the fire.



Call 911.

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