

Properly Powered

Tips for proper use of battery-operated power tools

(Family Features) While battery-powered tools are convenient options for efficiently tackling projects both around the house and on the job site, contractors and DIYers alike still need to know how to safely operate and handle the tools. Another important safety aspect to keep in mind is battery selection.



Lithium-ion batteries have become the industry-standard energy source for cordless power tools due to their energy storage capabilities, durability, versatility and portability. However, counterfeit batteries – third-party batteries which appear to be from the Original Equipment Manufacturer (OEM) – and knock-off batteries are surfacing in the marketplace at a lower cost than OEM batteries.

These counterfeit and knock-off batteries have not been evaluated as a part of the tool, battery and charging system where an independent certification lab such as UL, CSA or ETL tests and evaluates the product for compliance with ANSI and internationally accepted safety standards. For cordless power tool “systems,” these standards evaluate the tool, battery and charger to ensure proper communication between those items and the ability to monitor and control critical functions, such as cell voltage balance, power delivery and temperatures.

Using a lithium-ion battery that is not specifically designed for a specific tool and charger system can result in poor performance, shorter life and damage to the tool and charger. This can also void a tool’s warranty or cause a battery to fail, which may cause a fire or explosion that could lead to personal injury or property damage. Because some counterfeit and knock-off batteries can be difficult to distinguish from OEM, it is important to purchase batteries from authorized dealers and distributors. If you have questions about your battery being a genuine OEM product, contact the power tool manufacturer.

In addition to the potential dangers of using unauthorized batteries, the higher energy potential in lithium-ion batteries, even OEM ones, can lead to potential damage when misused. Prior to operating a battery-powered tool, consider these tips for safe selection, use, transportation and disposal from the experts at the Power Tool Institute – the leading organization for power tool safety resources, information and education – and its members, who represent power tool brands.

Selection and Use:

- Batteries are not interchangeable, so it’s important to only use batteries and chargers from the original power tool manufacturer.
- Never modify, disassemble or tamper with a battery. The performance of modified batteries can be unpredictable and dangerous.
- Inspect batteries regularly for signs of damage, such as crushing, cuts, punctures or leaking fluids. If a battery is damaged, do not use it and contact the manufacturer.
- Never immerse your tool, battery pack or charger in liquid or allow liquid to enter it.
- Use and store your battery within the temperature limits stated by the manufacturer.

- As a general practice, it is best to unplug battery chargers and remove battery packs when not in use. Do not store batteries on their chargers.

Transportation and Disposal:

- Always transport and store lithium-ion batteries as instructed in the instruction manual.
- Do not allow metal objects, such as keys, coins, screws and nails, to contact the battery terminals.
- When disposing of a lithium-ion battery, take it to a local recycling center or place it in a receptacle designed for batteries. Throwing it in the trash or municipal recycling can pose a fire hazard.

Find more information on safe battery use at [TakeChargeOfYourBattery.com](https://www.TakeChargeOfYourBattery.com), or visit [PowerToolInstitute.com](https://www.PowerToolInstitute.com) for additional power tool safety and operation tips.

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