

Five tips for extending lithium-ion battery life

1: Keep batteries at room temperature

That means between 20-25 degrees C. The worst thing that can happen to a lithium-ion battery is to have full charge and be subjected to elevated temperatures. Don't leave or charge mobile or device batteries in a car in hot weather. Heat is by far the largest factor when it comes to reducing lithium-ion battery life.

2: Think about getting a high-capacity lithium-ion battery as a spare

Batteries deteriorate over time, whether they're being used or not. A spare battery won't last much longer than the one in use. It's important to remember the aging characteristic when purchasing batteries.

3: Allow partial discharges and avoid full ones

Lithium-ion batteries do not have a charge memory. That means deep-discharge cycles are not required. In fact, it's better for the battery to use partial-discharge cycles.

There is one exception.

Battery experts suggest that after 30 charges, allow lithium-ion batteries to almost completely discharge. Continuous partial discharges create a condition called digital memory, decreasing the accuracy of the device's power gauge. Let the battery discharge to the cut-off point and then recharge. The power gauge will then be recalibrated.

4: Avoid completely discharging lithium-ion batteries

If a lithium-ion battery is discharged below 2.5 volts per cell, a safety circuit built into the battery opens and the battery appears to be dead. The original charger will be of no use. Only battery analysers with the boost function have a chance of recharging the battery.

Also, for safety reasons, do not recharge deeply discharged lithium-ion batteries if they have been stored in that condition for several months.

5: For extended storage, discharge a lithium-ion battery to about 40 percent and store it in a cool place

Do not store lithium-ion batteries fully charged. Risk of Oxidation of the lithium-ion material will be at its highest rate. Storing lithium-ion batteries at 40 percent discharge and in the refrigerator (not freezer) is recommended.



*Used Batteries and Chargers should be disposed of responsibly. Consider local laws and rules
For Australian recycling information go to www.battery.org.au/recycling/handheld-batteries*