

LiPo Battery Care

1. Never charge, discharge, use, or store a damaged or puffy LiPo battery. Immediately follow proper disposal protocols.
2. **Never leave your LiPo batteries charging while unattended.** If a battery starts to become puffy, smoke, or catches fire you need to be able to immediately handle the situation. Walking away for even just 5 minutes can spell disaster.
3. A LiPo fire is a chemical fire. Always keep a Class D fire extinguisher nearby your battery charging/discharging and storage area. The battery charging/discharging and storage area should be free from any materials which can catch fire such as wood tables, carpet, or gasoline containers. The ideal surface for charging and storing LiPo batteries is concrete or ceramic.
4. Never overcharge a LiPo battery. Typically a full charge is 4.2v per cell. Never “trickle” charge a LiPo battery.
5. Never discharge a LiPo battery below 3.0v per cell. Ideally you never want to go below 3.2v per cell to maintain a healthy battery. 2.9v per cell and lower is causing permanent damage.
6. Always use a proper LiPo battery balance charger/discharger when charging and discharging your LiPos. It is crucial that all cells in a LiPo battery maintain the same voltage across all cells at all times. If the voltages across the cells deviate too much from each other (5mV ~ 10Mv), the battery can become unstable and dangerous. (Unless it's a single cell LiPo, in which case you do not need to worry about cell balance).
7. Always use a fire proof LiPo safety bag, metal ammo box, or other fire proof container when you are charging, discharging, or storing your LiPo batteries. While LiPo fires are rare, they can happen incredibly quickly and can do a lot of damage. All it takes is an internal short circuit to set the battery off. There is no way to predict when it will happen. It does tend to happen more often when batteries are fully charged, being overcharged, or while being discharged, but it can happen to any LiPo at any time. Never fill the container to capacity with your batteries, always follow manufacturer recommendations on LiPo bags for how many mAh's it can safely contain. It's ALWAYS worth investing in an explosion-proof LiPo bag or ammo can.
8. Do not use your flight case/travel case for long term LiPo storage. The foam and plastic in these cases can help spread a LiPo fire. Always use a fire proof container such as a metal ammo box or fire proof safe for storage.
9. Avoid purchasing used LiPo batteries. While some items are smarter to buy used to save money and help the environment, LiPo batteries are not one of those things. You never know what the previous owner did with them and they could already be badly damaged. “LiPo Battery Like New, Used Once” is usually a scam and should be avoided.

10. Never leave your LiPo batteries sitting around on a full charge for more than 2-3 days. If by the 3rd day you realize you are not going to use your battery today, you need to discharge your battery down to 3.6v-3.8v per cell for safe storage until you are ready to use the battery again.

11. Care for your LiPo batteries properly. Always store your LiPo batteries at room temperature. Do not store them in a hot garage, or in a cold refrigerator. Even though a cold battery has less chemical reaction taking place which can prolong its lifespan, taking a battery out from a cold fridge can cause condensation to occur on the inside of the battery, which can be very dangerous.

12. Always remember that heat is the number one enemy of LiPo batteries. The hotter your batteries get, the shorter their lifespan will be. Never charge a battery that is still warm from usage, and never use a battery that is still warm from charging.

13. Depending on how they are used, most LiPo batteries typically do not last longer than 300 charge cycles. Leaving them around on a full or depleted charge all the time, running them completely dead, or exposing them to high temperatures will shorten this lifespan dramatically.

14. LiPo batteries do not work well in cold weather. The colder it is, the shorter your run times will be due to the slowing down of the chemical activity within the battery. If it is below 14F (-10C), LiPo usage is not recommended at all. Your battery could cause your R/C vehicle to suddenly fail without warning in these temperatures.

15. Always pack your LiPo batteries in your carry-on bag and never in your checked baggage when traveling on an airplane. It's the law.