

PolyQuest LiPoly batteries

IMPORTANT SAFETY INSTRUCTIONS AND WARNINGS

You must read and follow our safety instructions and warnings before using or charging your lithium polymer batteries. Failure to read and follow the instructions may result in fire, personal injury, and damage to property.

Since many Radio-Controlled applications exceed manufacturer's recommended maximum discharge rates, there is no warranty (expressed or implied) by the manufacturer, its Distributor and Retailers in the respect to the Life Cycle, Capacity, Cell Characteristics or Storage of cells/packs used in the Radio-Controlled market.

In purchasing Lithium Polymer batteries from The Robot MarketPlace or its dealers, the buyer/user agrees to accept all responsibilities of these risks and not to hold PolyQuest (manufacturer), its Distributors and Retailers (owners and employees) responsible for any accidents, injury to persons, or property damage.

By purchasing this battery, the buyer/user assumes all risks associated with lithium polymer batteries. If you do not agree with these conditions, please return the battery to the store where you purchased for a refund/exchange.

Safety Precautions:

1. Lithium Polymer (herein referred to as LiPo) cells have very strict charging requirements. As a result, please always charge LiPo batteries with the recommended Protection Circuit Module (herein referred to as PCM) or great damage may occur. You can purchase the PCM from your retail hobby shops or from our website at www.robotmarketplace.com.
2. You should only use approved LiPo chargers and **never ever** use a NiMh or NiCd chargers to charge LiPo. Failure to do so may cause a fire which can result in personal injury and property damage. Please note that even though some cheap chargers indicate that they can charge LiPo, it is not safe to do so. You should invest in a quality reputable LiPo specific charger. For a list of approved LiPo chargers, please check our website.
3. Never leave LiPo charging unattended. You should always monitor the charging process of your LiPo so that you can react immediately to any potential problems that may occur. If your batteries start to balloon or swell up, discontinue charging immediately and follow disposal notice below.
4. Before and after every use of your LiPo batteries, inspect them to ensure that there is no physical damage or swelling as those are signs of imminent failure. You should also have your chargers inspect annually by its manufacturer to ensure that it is functioning properly.
5. You should always buy factory authorized built packs instead of building your own. If you attempt to build your own, please use extreme care and have a fire extinguisher handy.
6. Always observe the correct polarity when connecting cells or packs to charger or application.

Preparation for charging:

When you receive your order from us, please read all instruction and inspect all battery packs. If there's any physical damage or puncture, return the battery immediately. Always install proper connector immediately after you remove the protective caps on the wire lead. Remove one protective cap and solder that lead to the connector first then follow the same procedure for the next wire lead. Be careful not to short the wire lead. If you accidentally cause the battery to short circuit, place it in a safe open space and observe the battery for approximately 15 minutes. We recommend that you use Deans Ultra Plug or Deans Micro Plug connectors.

Charging Instructions:

To prevent possible fire damage, it is recommended that you charge your LiPo batteries outdoors in a fire proof container. Set voltage and current correctly to ensure that your battery will get a full charge. The charge voltage should equal to the number of cells times 4.2V per cell and the current should match the capacity of the pack (or lower). If your charger's current setting is jumper selectable, set it to match the capacity of the battery or lower than the capacity of the battery. Please see example below:

- PQ2S-1500, set charge parameters to 2 cells (8.4V), and current to 1500mAh.
- PQ3S-1500, set charge parameters to 3 cells (12.6V), and current to 1500mAh or lower.
- PQ4S-2600, set charge parameters to 4 cells (16.8V), and current to 2600mAh or lower.

Do not charge your LiPo battery above 1C (1 time the capacity). Your charger should complete charging your battery packs within one hour. Do not attempt to charge your battery if they are wired in parallel. Doing so will increase the risk of potential fire hazard and void all warranty. You should ONLY charge each battery pack individually through the PCM plug utilizing the PCM Guard.

PCM Guard:

If utilizing the recommended PCM, never disconnect the battery from the PCM while still charging. Wait for the battery to be charged prior to disconnecting. If you sense there is a problem during the charging cycle, power off the charger or disconnect the PCM from the charger then address the problem. Failure to do so can destroy the PCM Guard. See our website for complete connect/disconnect procedures. Do not use the PCM Guard with

pulse chargers, such as Schultze, as they are not compatible.

Discharging Instructions:

Keep flight time short in multiple sessions to ensure a long life cycle. Do not exceed the rated C rating or damage can occur. If you need to exceed the C rating (i.e. take off, acrobatic stunts, etc), keep the pulse short and no more than 10 seconds. Allow for airflow over the pack in any application. This will prolong the life of the battery. Do not discharge battery to a level below 3V per cell under load. Deep discharge below 3V per cell can deteriorate life cycle and ruin your battery.

Storage & Transportation:

Store battery at room temperature in cool or shaded area. Do not expose battery packs to direct sunlight or in direct contact with any liquids. If there's water contact, remove battery packs immediately and wipe them off with a clean towel. Store battery in a safe container while driving. If keeping the battery in the car while driving, remove them immediately after you stop. You should never leave your battery packs in the trunk or in the car unattended as the temperatures can exceed 90F easily causing potential damage.

Life Cycle:

Life cycle of your battery depends on the extend of your "C" usage. The higher current you subject your LiPo battery to, the shorter life cycle you will get. If your batteries lose 20% or more of their rated capacity, you should discontinue using the battery and follow disposal instruction below.

Damaged cells or packs:

In the event that your LiPo batteries were involved in a crash, inspect the cells, wire leads, and connections for possible short circuit. If any cells are dented or deformed, there's a possibility of cells damage. If in doubt, destroy the battery as your safety is more important than a damaged battery. Follow disposal instructions below.

Operating Temperature:

Charge cycle: 32 to 120 degrees F

Discharge cycle: 32 to 140 degrees F

After use, let the battery cool down to room temperature before charging. If the battery becomes increasingly hot, stop charging or discharging immediately by shutting down your charger first; then restart only when it is safe to do so. Do not leave battery packs inside your car as extreme temperature could cause the battery to swell up and combust into flame.

Disposal Instructions:

Discharge all cells individually to 3.0 volts per cell. The cells or packs may be warm or hot during this discharge process (see above). After cooling, insulate the output terminals and dispose of your battery immediately.

Additional safety guidelines:

If you come in contact with electrolyte, scrub with soap and water immediately. In the event that electrolyte gets in your eyes, flush with cold water and seek medical attention immediately. And as always, keep all batteries and radio control equipments out of reach of children.

Product Warranty:

Product warranty is limited to original manufacturer's defects in material and workmanship. Warranty does not cover collateral damage such as personal and property damage. Due to the nature and use of polymer batteries, there is no term warranty expressed or implied.

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Thank you for choosing PolyQuest Lithium Polymer Batteries