**Free sample from The RC Car Driving & Tuning Planner.** This is worksheet 9 of 12. Get all 12 worksheets: rccarcalc.com/kit/rc-car-driving-and-tuning-planner



# LiPo Safety: Charge, Storage & Disposal

The habits that prevent a battery fire, and what to do with a pack that is done

**Driver** _____ **Date** _____

Lithium polymer packs store a lot of energy and can burn if they are overcharged, over-discharged, punctured or charged while damaged. The authority for your pack is the manufacturer: read the warnings printed on the pack and in the charger manual and follow them where they differ from this sheet. Researched guidance, not professional advice.

## Every charge

- [ ] Charger set to LiPo and the correct cell count (or auto-detected, and confirmed on screen)
- [ ] Both the main plug and the balance lead connected, every time
- [ ] Charge at 1C or less unless the pack label states a higher charge rate
- [ ] Pack inside a LiPo bag or fire-resistant container, on a non-flammable surface, away from anything that burns
- [ ] Never left unattended while charging, and never charged overnight
- [ ] Pack cooled to room temperature before charging; never charge a pack that is still warm from a run
- [ ] Pack inspected first: never charge a puffed, dented, punctured or damaged pack

## Every run

- [ ] ESC low-voltage cutoff set to LiPo (check the ESC manual); stop driving when the car slows
- [ ] Never run a pack below about 3.2 V per cell under load; land the car before the cutoff, not at it
- [ ] Pack strapped in, with wires clear of the drivetrain
- [ ] After a crash, check the pack for dents, puffing or heat before charging it again

## Storage

| Cell count | Storage voltage (about 3.8 V per cell) |
|---|---|
| 2S | 7.6 V |

| Cell count | Storage voltage (about 3.8 V per cell) |
|---|---|
| 3S | 11.4 V |
| 4S | 15.2 V |
| 6S | 22.8 V |

- [ ] Use the charger's storage mode if a pack will sit for more than a few days
- [ ] Store in a LiPo bag or fire-resistant box, cool and dry, out of direct sun and out of a hot car
- [ ] Keep packs away from children and pets, and off shelves above anything flammable

## Retire and dispose of a pack

**Retire it** when it puffs, swells, is dented or punctured, gets hot while charging, will not balance, or its runtime has dropped sharply. Do not charge it again.

**Dispose of it** the way the pack or charger manufacturer instructs. Many direct you to discharge the pack fully using a charger's discharge function, then take it to a battery recycler or household hazardous waste site. In the US, many retailers and drop-off points in the Call2Recycle network accept rechargeable lithium batteries; check your local rules first.

**Never** put a LiPo pack in household trash or curbside recycling, and never puncture or cut one open.

## If a pack swells, smokes or catches fire

- [ ] Stop charging or driving; disconnect only if it is safe to do so
- [ ] Keep people and pets away; move it only if you can do so safely, to a non-flammable area outdoors
- [ ] If there is fire, call your local emergency number and follow the fire department's instructions
- [ ] After it has cooled completely, dispose of it as a damaged battery per local rules

**Named above, from the site's own catalog**

Real listings from this site's own catalog.

- **Fire-resistant LiPo bag**: Where a pack charges and sits between runs, the bag this site's intermediate builds use.
- **Fire-retardant LiPo zipper bag**: A second bag for storage, so charging and stored packs stay apart.

Current prices and our latest picks for each item: **rccarcalc.com/kit/rc-car-driving-and-tuning-planner/gear/**


Researched guidance, not professional advice. Always follow the manual for your vehicle and the instructions printed on your battery and charger. Never charge a LiPo unattended, and never drive near people, pets or roads.