

**TEAM TRINITY Lithium-Polymer Batteries for R/C
Vehicles Handling and Safety Instructions**

WARNING!

Read these instructions and follow them in regard to safely charging your Trinity Li-Po battery pack. The user will take the full responsibility for using and the results of using this battery pack. TRINCORP, LLC., your point of purchase and any dealer/distributor of this battery will assume absolutely no responsibility for the use or misuse of this product and any damages or injuries that may occur.

Li-Po (Lithium-Polymer) batteries are designed to out perform Ni-Cd and Ni-MH batteries in the areas of weight, voltage and capacity, but greater care must be taken to insure safe use in regard to your vehicle, person and your surroundings.

The nature of Li-Po batteries is the gains in capacity and performance comes at a cost in the areas of safety and maintenance. Used correctly your Li-Po battery pack will prove to be safe and reliable.

The Li-Po technology requires special chargers and different ways of charging and caring for your battery pack than you have been accustomed to with Ni-Cd and Ni-MH. More care is required with Li-Po especially during charging and storing.

WARNING!

Li-Po batteries are unlike Ni-Cd and Ni-MH and cannot be charged, used, treated or stored in the same manner. The nature of the Li-Po battery pack is that the failure to follow the care and handling instructions provided can result in severe permanent damage to the battery pack, its surroundings, your person and it can even start a fire.

READ INSTRUCTIONS FULLY BEFORE USE!

CHARGING:

- Your Trinity Li-Po battery pack has 5mm bullet style connectors. Use correct plug when charging. Never use alligator clips.
- We recommend balance charging this battery pack (2 cell) every couple charges to keep the battery performing at its best.
- Never leave battery pack unattended at anytime during charging. You must always charge your battery pack in a fireproof location, which could be a metal container like a pail, pot, Li-Po sack or bucket of sand. Always keep an "ABC" type lithium approved fire extinguisher present.
- Charge only with a Li-Po compatible charger that has a constant current/constant voltage (cc/cv) circuit.
- Never use a charger designed only for Ni-Cd/Ni-MH. This will result in catastrophic failure of the battery that can result in serious fire and personal injury.
- Never charge battery in car, boat or plane. A hot battery pack could ignite foam, plastic or wood.
- Do not charge at currents greater than the battery packs 1C rating. As a rule (in fact a ROAR rule) Li-Po packs should not be charged with anything other than a cc/cv type charger. Constant current-constant voltage. Set at 1C charge rate.
Divide your mAh by 1000 to set your charge rate. Examples below. Rates.
6000 mah pack is 6 amps maximum.
7000 mah pack is 7 amps maximum.

Do not over charge your battery. Do not charge beyond 4.2v per cell maximum.

3.7 volt pack charge no more than 4.2 volts total.

7.4 volt pack charge no more than 8.4 volts.

- Do NOT discharge or leave your pack below 3.2 volts per cell.
3.7 volt pack, never below 3.2 volts.
7.4 volt pack, never below 6.4 volts.

- Do not trickle charge your Li-Po batteries.

- Always use a Li-Po compatible charger that automatically detects the number of cells.

- Set chargers output to match the nominal rated voltage of the entire battery pack.

- In the case of a Li-Po racing battery that would be 7.4 volts. Charging higher than rated voltage will cause catastrophic failure of the battery and cause damage to the battery, its surroundings, and cause personal injury.

- Do not allow battery temperature to exceed 140°F /60°C while charging. Batteries, which exceed these temperatures more than likely, have become damaged and can possibly catch fire. Always inspect any battery pack that may have become over heated and if you suspect damage do not reuse.

- Discontinue charging immediately if you see any smoke or swelling of the battery pack. This could cause the battery pack to rupture and leak. The chemicals used in Li-Po battery packs on exposure to the air may cause the chemicals to ignite. Disconnect battery and leave in a safe fireproof location for 60 minutes.

- Your Trinity 2 cell Li-Po battery pack has a balanced charger input. This is to be used only with a balance charger. This type of charger balances the cells making your battery more stable and higher performing. Make sure if balance charging you have a charger that will charge 2 cell packs. We recommend balance charging after every couple of cycles.

- Monitor battery pack through out entire charge cycle. Do not leave unattended.

- The small balance charger plug (2 cell) is used only for balance charging. Do not fast charge through this connection.

DISCHARGING:

- Make sure you stop running as soon as vehicle slows down. Make sure your speed control has a Li-Po cutoff setting of 6 volts that will prevent over discharging your battery pack. This circuit will turn off speed control when the voltage drops below the usable level.
- Do not discharge the batteries with current exceeding their specified maximum continuous discharge current (C), otherwise, it will cause the batteries to overheat and result in battery deterioration, burst, ballooning or may even cause fire or explosion.
- Stop using or charging the battery immediately whenever a battery becomes damaged, gives off an odor, becomes discolored or deformed, starts to balloon or swell up, leaks, its temperature reaches over 160°F (71°C) or anything else abnormal occurs, disconnect the battery and observe it in a safe fire proof place.
- Never discharge Li-Po battery below the Lowest Discharge Voltage, as it may cause irreversible damage that will deteriorate the battery performance and cycle life.
- Discharge only in fireproof area.
- Never leave battery in fully charged state for more than 2 hours as this could cause cells to swell.

DAMAGED BATTERIES:

- Because of the nature of Li-Po technology batteries subjected to crash damage are much more dangerous than Ni-Cd or Ni-MH cells. The battery may appear to have no physical damage however there could be a delayed chemical reaction which could cause the battery to smolder,

smoke and catch fire even an hour after subjected to a crash. After a crash remove battery and place in fireproof location for observation. Leave for 24 hours for safety.

- Inspect battery packs for even the smallest crack, split, puncture or any damage to wires or connectors.
- Cells may get hot.
- DO NOT ALLOW the batteries electrolyte to get in eyes or on your skin. Wash affected areas immediately. If splashed in eyes flush with large amounts of water for 15 minutes and seek medical attention immediately.

STORAGE:

- For long-term storage charge battery fully, and discharge to 50 to 75% capacity.
- Do not leave your battery pack plugged in to your R/C vehicle. Speed controls have capacitors in them that will take the pack below the recommended level and damage it.
- Always store batteries in fireproof container.
- Store battery at room temperature in cool shaded dry area.
- Store battery in temperatures between 40 to 75°F.
- Store battery out of direct sunlight and away from any liquids. Do not let battery get wet.
- Never transport batteries in your pit box or R/C vehicle. Always transport in fireproof container.
- Make sure all plugs and connectors are covered to prevent accidental shorting.
- Never leave your Li-Po battery pack in your automobile as temperatures can easily exceed 120°F damaging your battery.

HANDLING:

- Never charge or discharge your Li-Po battery pack around combustible materials.
- Never carry battery pack or loose Li-Po cells in pocket of clothing.
- Never store batteries near heat or open flame.
- Never allow battery to come in contact with water. If battery becomes wet wipe off immediately with rag.
- Never solder to battery pack. Soldering to Li-Po cells has to be done by professional Li-Po battery assemblers under controlled conditions.
- Never assemble Li-Po battery with any other Li-Po or other type of battery pack.
- Never disassemble, alter, modify, puncture, mechanical shock, crash and/or short the battery, it may cause leakage, smoke emissions, ignition, explosion and even fire, which may result in personal injury and property damage.
- Never charge without "ABC type" Lithium approved fire extinguisher readily available in case of fire.
- Keep all metallic objects away from battery pack. Shorting battery pack can cause fire and personal injury.
- If battery pack becomes overheated immediately put battery in fireproof container or location until battery pack cools.
- Always make sure there is adequate ventilation around battery pack

while charging, discharging and during storage.

- Never store battery in R/C vehicle.

FIRST AID:

- Do not allow the battery packs electrolyte to make contact with eyes or skin. If this happens wash affected areas with soap and water immediately. If electrolyte comes in contact with eyes, flush with large amounts of water for approximately 15 minutes and seek medical attention immediately.
- If your battery leaks electrolyte, vapors or smokes do not inhale the leaked material or fumes. Leave the area and allow battery pack to cool and vapors to dissipate. Remove spilled liquid with absorbent material and wash area thoroughly with soap and water.

DISPOSAL:

- Li-Po batteries are environmentally friendly and do not need to be recycled like Ni-Cd. Although there is no recycling required Li-Po batteries need special care before disposing of them.
- Do not throw batteries directly in trash. There are measures you must take to dispose of damaged and undamaged battery packs. Throwing batteries directly in trash can result in fire.
- Undamaged Li-Po batteries need to be discharged before disposal. Place undamaged battery in fireproof container or bucket of sand. Connect battery to a Li-Po discharger and set cut-off to lowest voltage. Set the discharge current to .5 amps and discharge battery pack until it reaches 1V or lower per cell, (2 volts for this battery pack). You may also run battery in vehicle until there is no more power.
- Put battery in bucket or tub of salt water. This container should have a lid but needs not be air tight. The mixture should be 3 to 5 gallons of cold water with 1/2 cup of salt mixed in per gallon.. Put battery in container and allow battery to remain for 2 weeks. After 2 weeks remove battery and place in trash.
- For batteries that have swelled, split, been punctured or have any other damage do not discharge. Put battery directly in tub of salt water and leave for 2 weeks before disposing of in trash. Once you have discharged and soaked your battery pack in salt water you can safely dispose of the battery pack in the trash. No special recycling program is required.

TRINCORP, LLC. assumes no liability for the use or misuse of this product. By purchasing this battery the consumer/buyer/user assumes all liability and will take the full responsibility for using and the results of using this battery pack.

TRINCORP, LLC. your point of purchase and any dealer/distributor of this battery their employees or owners will assume no responsibility for the use or misuse of this product and any damages or injuries to property or person that may occur from its use. If the above terms are not agreed to please return this battery pack unused to the place of purchase.

Warranty:

Because of the nature of this product and how we can not control the way it will be charged, discharged or stored after purchase, TRINCORP, LLC. only offers a 30 day warranty on Li-Po battery packs. Swollen, race damaged and shorted packs will not be covered under warranty. Use your battery pack at your own risk.

Any battery sent in to TRINCORP, LLC. without a return authorization # or one not under warranty will be disposed of at our facility. If you wish your old battery back at this point you must pay \$14.00 shipping & handling for return postage.

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