



# ***LIP0 BATTERIES – USER GUIDE***

Thank you for choosing Team Corally LiPo (Lithium-Polymer) batteries. LiPo batteries require special handling in regards to charging, discharging and storage. Carefully read and follow up on the following information. Store these instructions and hand over with the battery if used by others.

## **WARNING! – INCORRECT USE MAY BE DANGEROUS – PLEASE NOTE FOLLOWING:**

- ▲ Keep LiPo batteries out of the reach of children and pets. LiPo batteries are not a toy.
- ▲ LiPo batteries can be a fire hazard and be damaged if charged or discharged improperly.
- ▲ Use approved LiPo chargers only. Never use a Ni-MH or Ni-Cd charger! Carefully read the instructions of the charger before use.
- ▲ Make sure the LiPo battery is connected correctly. The red wire to the positive ( + ) and the black wire to the negative ( - ). Avoid incorrect connections or reversed polarity which may cause cell ruptures, smoke and flames. All wires and connections must be well insulated.
- ▲ Never charge or discharge LiPo batteries unattended.
- ▲ Do not incinerate, disassemble or short-circuit the battery. It may explode if damaged or disposed of in fire.
- ▲ During charging the battery must be placed on a non-flammable, heat resistant and non-conductive surface. Keep inflammable materials away from the charging area.
- ▲ Never try to solder directly to the LiPo batteries. Always avoid excessive heat and direct sunlight.
- ▲ The surface of LiPo battery packs that do not have a hard case may easily be damaged by for example sharp objects. LiPo batteries can be a fire hazard and become useless if the surface is damaged. Therefore the battery must be installed in your car in such position where it cannot be distorted or damaged.
- ▲ Avoid subjecting the battery to mechanical shocks and pressure on the surface. Do not try to bend or twist. Never attempt to use a damaged battery pack.
- ▲ Never dismantle a LiPo battery. Do not try to replace the individual cells of the battery pack. Damaged cells must never be re-used.
- ▲ Use and store in a dry environment. Avoid all contact with liquids of any kind.
- ▲ LiPo batteries contain toxic electrolytes and vapours which are damaging to health. Avoid direct contact with electrolyte. If electrolyte contacts your skin, eyes or any other body part, immediately wash it off using plenty of clean water, then consult a doctor.

## **CHARGING:**

- ▲ Corally LiPo batteries can be charged at a rate of 1C maximum (1C corresponds to the cell capacity).
- ▲ Best performance is achieved when charged in environmental temperature of 20~30°C. The temperature of the battery should never exceed 50°C during charging.
- ▲ The maximum charge capacity may not exceed 1.05x the battery capacity.
- ▲ The voltage of the batteries should never go above 4.2 volt during charging. Ideally all cells should exhibit the same voltage. Higher voltage may cause permanent damage to the cells and may cause explosion or fire.
- ▲ LiPo batteries may only be charged as a pack but the voltage of the individual cells may never differ more than 0.05 volt. If the difference in voltage between individual cells is more than 0.05 volt the cells must be balanced until the voltage of the cells is within 0.05 volt. Battery packs which remain far out of balance may be damaged and should be discarded.
- ▲ A balancer must be used with every charge. Most balancers are connected to the battery before charging, remain connected during charging and are to be removed when charging is complete. Check the user guide of the balancer for detailed instructions.
- ▲ Never series- or parallel connect battery packs since the cell capacities, voltage and battery condition may be too different.
- ▲ Make sure to set the charger to the correct cell count, final charge voltage and final discharge voltage.
- ▲ Each time a LiPo battery is charged or discharged the capacity gradually declines even if all instructions are being observed.

## **DISCHARGING:**

- ▲ Corally LiPo batteries can be discharged at continuous currents of over 20C (or as indicated on the product label).
- ▲ During discharge the voltage of the batteries should never go below 3.0 volt. To avoid this stop your car as soon as power loss is noticed. Use LiPo program if your speed control has one. If not, a separate LiPo safety switch should be used.
- ▲ The temperature of the battery should never exceed 70°C during discharge.
- ▲ Deep-discharging and storing in a discharged condition (cell voltage below 3.0 volt) will damage the battery.

## **STORAGE:**

- ▲ Storing LiPo batteries at excessively high or low temperatures may cause a gradual reduction in capacity. During storage the temperature of the battery should never go below 0°C or above 50°C.
- ▲ Store LiPo batteries with a minimum charged capacity of 10-20%.
- ▲ LiPo batteries will be damaged if stored in a discharged condition (cell voltage below 3.0 volt). Recharge the battery if cell voltage goes below 3.0 volt.

## **WARRANTY:**

Team Corally declares this product to be free from manufacturing defects. No warranty can be claimed for any damage caused by the use of this product including damage caused by incorrect installation, charging, discharging, storage or handling.

## **DISPOSAL:**



Do not dispose of these products as unsorted municipal waste. The correct method of disposal is to take it to your local collection point for recycling electrical and electronic equipment. The symbol shown here which may be found on the product itself, in the operating instruction or on the packing, indicates that this is the case.