- 1. Before and after every use of a LiPo battery, carefully inspect the pack to ensure no physical damage, swelling or "ballooning" is evident.
- 2. If at any time you have had an accident with your model, or if the battery swells, "balloons", or feels too hot to the touch, immediately stop use and carefully follow these safety steps:
  - a. Using protective gloves, remove the battery pack from your model or charger.
  - b. Place the battery in a LiPo safety sack or other fireproof container, away from flammable materials and in a well-ventilated area.
  - c. Observe the battery from a safe distance for at least 30 minutes.
  - d. If after 30 minutes the pack appears stable, follow the battery disposal instructions below.
  - e. Under no circumstances should you return a battery to service that has "ballooned" or been damaged in any way.
- 3. Immediately discontinue the charging of a LiPo battery if it begins to swell or "balloon".
- 4. Always handle LiPo batteries with extreme care and take all necessary precautions to avoid battery packs and cells being dinged, dented, punctured, or otherwise damaged.
- 5. Keep battery packs out of the reach of children and pets.
- 6. Do not disassemble, modify, or attempt any form of repair of a LiPo battery.
- 7. Do not allow exposed battery wires to touch each other.
- 8. Always disconnect your battery from any device when not in use. All devices continue to draw power even when turned off.
- 9. Store your batteries in a cool, dry place between 40-80 F° / 4-26C°. All battery packs should be stored away from any flammable materials in a LiPo safety sack or other fireproof container with the plugs/connectors covered.

- 10. Batteries should be stored at 3.75-3.80 volts per cell. Do not store batteries with voltage above or below this range for longer than one week. Check cell voltage with a LiPo Checker such as Venom (part # 0644 or 0699) by following the included instructions.
- 11. LiPo batteries must be fully charged and returned to the recommended storage voltage range (3.75-3.85 volts per cell) at least once a month.
- 12. Always take precautions to cover the battery plugs/connectors while not in use.
- 13. Always transport LiPo batteries in LiPo safety sack or other fireproof container with the battery plugs/connectors covered.
- 14. Never leave LiPo battery packs in an automobile. Temperatures within a vehicle can quickly reach unsafe levels.
- 15. Always keep a class D chemical fire extinguisher nearby, in case of fire when storing, handling, charging, or using LiPo battery packs.
- 16. Always charge batteries in a LiPo safety sack or other fireproof container. Do not charge any type of battery on or near any flammable materials including in or near your model.
- 17. Never leave batteries unattended while charging, even when using a LiPo safety sack or other fireproof container. Batteries on charge MUST remain under constant observation so that you may react quickly should any problems arise.
- 18. Venom LiPo batteries, 2S and greater, feature a separate balancing plug that isolates each cell in a pack and allows each to be charged and monitored independently. This ensures that all cells charge equally and discharge at the same rate during use. Never charge a 2S or greater LiPo battery without connecting the balance lead to the charger. Always balance charge a 2S or greater LiPo battery.
- 19. Charge each battery pack individually. Never charge battery packs in series. Charging packs in series may result in improper charger cell recognition, improper charging rate, and over charging that may lead to a fire. We recommend using a Venom LiPo balance charger when charging your LiPo batteries.

- 20. Always check to make sure that your LiPo charger settings match those listed on the battery pack label. Refer to the battery label for the proper cell count and 1C charging amperage setting.
- 21. Make sure the battery connections are connected in the proper polarity.
- 22. Battery packs should be properly secured within the vehicle to prevent movement and damage to the battery while in use.
- 23. If, during charging, the battery exceeds temperatures of 140 F° / 60C° immediately discontinue charging and isolate the battery pack. Refer to point number two above from the Safety Warnings for further instruction.
- 24. Do not, under any circumstances, heat up a battery pack in an attempt to increase pack performance. Doing so greatly increases the risk of fire.
- 25. Never allow your model to discharge a LiPo battery pack at more than the recommended continuous discharge rate. Refer to the label of your specific battery to determine the proper continuous discharge rate. You must also refer to your specific vehicle user manual to ensure your batteries continuous discharge rate is not exceeded.
- 26. Damaged or ruptured battery packs or cells may leak electrolytes which can cause moderate to severe irritation including burning and dryness of the skin and eyes. For contact with the skin, thoroughly wash the affected area with soap and warm water. For contact with the eyes, rinse thoroughly with cool water. Seek immediate medical attention for any burns.

# Failure to observe any of the following precautions can result in fire, explosion and cause personal injury.

- 1. Due to international shipping regulations, LiPo batteries are not shipped fully charged. All Venom LiPo battery packs should be fully charged prior to the first use.
- 2. Always use a charger specifically designed for LiPo batteries. Never use NiCD or NiMH chargers to charge LiPo batteries.

#### Important Information Regarding Charging & Safety Warnings

- 1. Make sure the battery connections are connected in the proper polarity.
- 2. Always check to make sure that your LiPo charger settings match those listed on the battery pack label. Refer to the battery label for the proper cell count and 1C charging amperage setting.
- 3. For the longest lifecycle and most thorough charging of your LiPo battery we recommend a 1C charge rate. Batteries that are properly maintained have an average lifespan of 150-250 charge cycles. Many Venom batteries are capable of higher charge rates to reduce charge times. While your charge time will be greatly reduced, the lifespan of your pack will also be reduced with repeated charging above 1C. Always confirm and follow your specific packs maximum charge rate as shown on the battery label.
- 4. Do not charge LiPo batteries to more than 4.2 Volts per cell for normal voltage batteries, or 4.35 Volts per cell for High Voltage (LiHV) LiPo batteries. Refer to the label of your specific battery for maximum cell and pack voltage.

#### Important Information Regarding Over-discharge & Safety Warnings

- 1. Do not use LiPo battery packs with any device that does not have over-discharge protection, which is turned on and properly calibrated. Over-discharge protection or low voltage cut-off (LVC) should be set to no lower than 3.0V per cell.
- 2. Batteries should be stored at 3.75-3.80 volts per cell. Do not store batteries with voltage above or below this range for longer than one week.
- 3. LiPo batteries must be fully charged and returned to the recommended storage voltage range (3.75-3.85 volts per cell) at least once a month.
- 4. Do not discharge LiPo batteries below 3.0 Volts per cell.
- 5. ual to ensure your batteries continuous discharge rate is not exceeded.

- 6. Never allow your model to discharge a LiPo battery pack at more than the recommended continuous discharge rate. Refer to the label of your specific battery to determine the proper continuous discharge rate. You must also refer to your specific vehicle user man
- 7. Be sure to disconnect battery packs from any and all device immediately after use.

#### Battery Disposal Instructions & Safety Warnings

- 1. Any battery that has been subjected to conditions outside of normal use, shows signs of swelling, "ballooning", damage or has been retired from use should be disposed of properly. We recommend transporting these battery packs to an approved disposal facility while observing the applicable safety warnings above.
- 2. Check with your local waste facility to determine if they can handle disposal of lithium batteries and if they are permitted. Many stores also offer free recycling of rechargeable batteries. To find a drop-off location near you please visit: http://www.call2recycle.org/locator

Failure to follow any of the instructions and safety warnings contained within this document may cause irreversible damage to the battery pack or to your model.

### **Batteries**

Before using your vessel in the field, it is important to conduct a systems check to ensure the job is successful. The first check for operation is checking battery voltage. Due to regulations, LiPo batteries must be discharged for shipping, and it is important for their health and longevity that they are charged fully before being used.

\*\*\*\*\*\*\*\*\*\*\*\*ALL BATTERIES MUST HAVE SAME LEVEL OF CHARGE, EACH CELL IN EACH BATTERY MUST BE WITHIN 10%, AND THEY SHOULD REMAIN 3.3V AND BELOW 4.2V PER CELL\*\*\*\*\*\*\*