LiPO Balance Charger™ 2Cell-3Cell

Thank you for purchasing the 2-3 cell LiPO Balance Charger™. While this charger is simple to use, please read these instructions thoroughly and carefully to avoid accidents and potential hazards. If you have any questions, please feel free to call our customer service department at 800.705.0620 or contact your local hobby shop. Both are excellent resources for information and are more than willing to help new hobbyists. Remember to keep your receipts if you should need warranty service on any of our products.

INSTRUCTIONS

WARNING!

Charging and discharging batteries has the potential for fire, serious injury to persons and damage to property. The user of this charger agrees to accept responsibility for all such risks. Venom Power™, its affiliates, manufacturers, distributors, and retail partners can not control the use, application, charging or installation of this product and shall not be held responsible for any accident, injury to persons, or damage to property resulting from the use of this product.

REFER TO THE LiPO SAFETY GUIDELINES IN THESE INSTRUCTIONS FOR MORE INFORMATION.

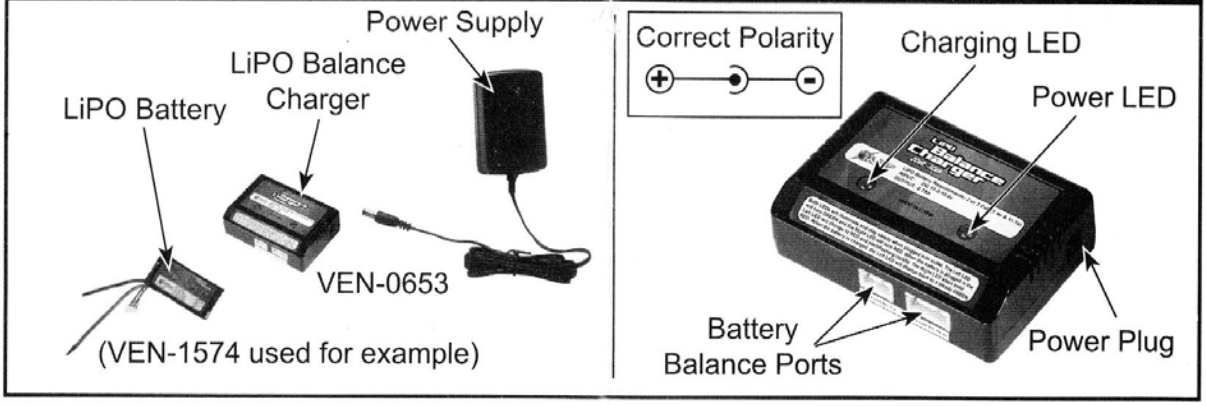
1. Always use a charger specifically designed for LiPO batteries. ONLY charge 2 - 3 Cell LiPO Batteries with this charger or a LiPO Charger that has Peak Voltage Detection. Never use NiCD or NiMH type chargers to charge LiPO batteries. Failure to do so will damage the batteries and may cause fire and personal injury. Read all Safety Guidelines, Charging Instructions, New Battery Break-In, and Battery Disposal Instructions before using batteries. Store battery packs out of the reach of children and pets. Children under the age of 18 must be supervised by a responsible adult.

CHARGING INSTRUCTIONS

1. **ALWAYS REMOVE THE BATTERY FROM YOUR MODEL BEFORE CHARGING!** Plug the power supply into a wall outlet, then attach the LiPO Balance Charger (VEN-0653).
2. Both LEDs will illuminate. The Left LED will be GREEN and the Right LED will be RED.
3. Plug the battery into the correct charging port on the charger and the Left LED will change to RED and start flashing rapidly. When the battery is charged, the Left LED will turn GREEN.
4. Charge time will be about 1.5 hours for a completely discharged battery or from 45 min. to 2 hours depending on the charge left in the LiPO Battery.
5. If the battery gets warm or hot during charging, disconnect the battery and set it on a non-flammable surface and allow it to cool down and look for any swelling or balooning in the pack.

APPROXIMATE CHARGE TIMES FOR 2-3 CELL LiPO BATTERIES		
(VEN-1568)	20C 800mah 7.4v 2-Cell LiPO Battery	(approx. 1 hour)
(VEN-1569)	20C 1250mah 7.4v 2-Cell LiPO Battery	(approx. 1.5 hour)
(VEN-1570)	20C 1550mah 7.4v 2-Cell LiPO Battery	(approx. 2 hour)
(VEN-1573)	20C 800mah 11.1v 3-Cell LiPO Battery	(approx. 1 hour)
(VEN-1574)	20C 1250mah 11.1v 3-Cell LiPO Battery	(approx. 1.5 hour)
(VEN-1575)	20C 1550mah 11.1v 3-Cell LiPO Battery	(approx. 2 hour)

PROPER CONNECTION & LED INDICATORS



LiPO BATTERY SAFETY GUIDELINES

1. Always use a charger specifically designed for Lithium Polymer batteries. Never use NiCD or NiMH type chargers to charge LiPO batteries. Failure to do so will damage the batteries and may cause fire and personal injury.

2. Always charge batteries in a fire proof container or in the open, away from flammable materials. Do not charge batteries on wood, cloth, carpet, in your helicopter, or on any other flammable material. Keep a chemical fire extinguisher nearby in case of fire.

3. Never leave batteries unattended while charging. Always observe batteries when charging so that you may react quickly to any problems that may occur.

4. Venom Power™ LiPO cells feature a separate balancing plug that isolates each cell in a pack and charges it independently. This ensures that all cells peak equally and discharge at the same rate during use preventing one or more cells from discharging past their safe low voltage cut off rating. The balancing plug can be identified by the multi wire Molex plug.

5. Charge each battery pack individually. Never charge battery packs in series. Charging packs in series may result in improper charger cell recognition and an improper charging rate that may lead to overcharging, cell damage and fire.

6. Always check to make sure that your charger settings match those listed on the battery pack label. Refer to the battery label for the proper cell count and charging amperage setting. Selecting a cell count or amperage charge rate other than the one listed on the battery pack will damage the battery and may cause a fire.

7. Make sure the battery connections are connected in the correct polarity. A wrong connection will damage the battery and may cause a fire.

8. Always check battery pack voltage before charging. Do not discharge LiPO batteries below 3.0 Volts per cell. The voltage of a typical LiPO cell at rest is 3.7 Volts. If the battery pack appears swollen or damaged, DO NOT attempt to charge it. Check the voltage and follow Step 5 from the Safety Guidelines section.

9. Do not charge at over 1C current. C= battery pack mah capacity ÷ 1000. Divide the battery mah capacity by 1000 to determine the proper charge rate. Example: 1200mah ÷ 1000 = 1.20 Amps Charge Rate for Venom Power LiPO Battery Packs, example:

a. 800mah Capacity = 0.80 Amps
b. 1200mah Capacity = 1.20 Amps
c. 2000mah Capacity = 2.00 Amps

10. Do not peak charge to more than 4.2 Volts per cell. Example: A 2S Battery Pack contains two cells, therefore the peak voltage should not exceed 8.4 Volts.

11. Battery Temperature is critical. For optimum performance in cold climates, warm the pack to 100F°/ 37C° before use. Please use the following guidelines:

a. Charge Temp Range: 32 - 110F° / 0-43C°
b. Discharge Temp Range: 32 - 140F° / 0-60C°
c. Storage Temp Range: 40 - 80F° / 4-26C°

12. If the battery exceeds the temperature guidelines as above, isolate the battery pack and follow Step 5 from the Safety Guidelines section.

NEW BATTERY BREAK-IN:

1. New LiPO battery packs may require 12 or more charge/discharge cycles before the battery's optimum performance is reached.

2. During this time, it is recommended that the battery pack is not discharged over 7C. 7C = 7 x 1C, where 1C= battery pack mah capacity ÷ 1000.
Example: [(1250mah ÷ 1000) x 7] = 8.75 Amps

Recommended Maximum Discharge Rates During Break-In Period

a. 800mah Capacity = 5.4 Amps
b. 1200mah Capacity = 8.4 Amps
c. 2000mah Capacity = 14 Amps

DISCHARGING INSTRUCTIONS:

1. Never discharge a LiPO battery pack at more than the manufacturers recommended discharge rate.
The discharge rate is: Battery pack capacity (mah) ÷ 1000 x Pack C rating
Example for 15c packs: (3200 mah ÷ 1000) x 15c = 48 Amps
Example for 20c packs: (2100 mah ÷ 1000) x 20c = 42 Amps

2. Any time you have an accident with your battery, if the battery swells "balloons" or if the battery exceeds temperature guidelines, follow these safety steps:

a. Immediately remove the battery pack from your helicopter or charger.
b. Place the battery in a non-flammable, well ventilated area.
c. Observe the battery for 30 minutes from a safe distance.
d. After 30 minutes, if the pack appears stable, is not swollen and does not show any signs of damage, return the battery pack to normal use with caution.

3. If a battery is deformed, swollen or appears damaged, **DO NOT CHARGE. IMMEDIATELY DISCHARGE.**

a. Discharge battery pack to 2.5 Volts per cell or less.
b. Fill a bucket with enough water to submerge the battery pack completely.
c. Add salt to the water until no more salt will dissolve; the water is now saturated with salt.

d. Place the battery pack in the bucket and leave submerged in the salt water solution for 24 hours.
e. Remove the battery pack from the salt water and test the voltage.
f. If the voltage does not read 0.0 Volts, re-submerge an additional 24 hours and re-test until the voltage reads 0.0 Volts.
g. Once the battery pack has been discharged to 0.0 Volts, it is safe to dispose.

4. Do not let exposed battery wires touch each other. This may cause the battery to short and potentially cause a fire.

5. Store your batteries in a cool, dry place between 40-80 F° / 4-26 C°. LiPOs should be charged to 50% of their capacity minimum before being stored.

6. Do not assemble unmatched or dissimilar LiPO cells.

Venom Power™ Limited Warranty

Venom Power™ warrants this product to be free of material and workmanship defects when new. If a component is defective or was not correctly made, Venom Power™ will, at its sole discretion, repair or replace it free of charge within 90 days from date of purchase. If you believe a defect became evident only after operation, please contact us to discuss the situation.

A dated & itemized sales receipt must accompany any product returned for warranty work..

GUARANTEE:

We guarantee the 2-3 cell LiPO Balance Charger™ to be free of manufacturing faults and material defects. This product has been checked and adjusted individually before leaving the manufacturer. Please contact your local hobby shop for replacement parts and technical support or contact Venom Power™ Customer Service at 800.705.0620 or customerservice@venom-power.com.

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