

HYPERION TVC FUNCTION – MANUAL ADDENDUM for v3.2 FIRMWARE

(Terminal Voltage Control per each memory slot, for LIPO and LIFE/A123)

The TVC function allows adjustment of final CHARGE voltage for LIPO and LIFE battery types for each memory position:

- +0mV (default, therefore no change. Lipo=4.200V terminal, LIFE(A123)=3.600V terminal)
- +5mV to +80mV (5mV steps, so LIPO for example terminates at 4.205V~4.280V)
- 5mV to -20mV (5mV steps, so LIPO for example terminates at 4.195V~4.180V)

The TVC Function is found in every memory slot for Lipo and Life, below TCS ACTION setting screen. Note that the TCV settings are RETAINED, like other Memory settings, when the charger is powered off. Be SURE that this setting is correct before using any LIPO or LIFE memory slot (Default TVC=0mV strongly recommended).

Note: After confirming CELL COUNT and START for LIPO/LIFE charging, if TVC setting is not default 0mV, current TVC setting will be shown for a few seconds before the charger begins the charge. Be sure to note the displayed TVC setting at this time, and STOP the charge to reset TVC to default whenever so desired.

Uses for TVC FUNCTION:

-5mV to -20mV: Reducing Terminal Voltage should only be done in case MEASURED cell voltage at your battery pack (with quality digital voltmeter) shows Terminal voltage exceeding 4.2V for Lipo (or default 3.6V for LIFE/A123 types). This essentially acts as a calibration function, and should normally be unneeded when using EOS standard, supplied output leads and balance harnesses. However, if you have made your own longer harnesses, the additional length in leads creates the possibility of extra induced resistance, and therefore a reading at the charger lower than is actually found at the battery. This could cause an over-voltage charge. If you find terminal voltage over 4.2V/cell for any LIPO cell, reduce TVC setting on each memory position until your MEASURED max cell voltage (at battery) is at 4.2V or lower if LIPO, or 3.6V or lower if LIFE.

+5mV to +80mV: Ability to set terminal voltage above defaults is only at the request of competition car, boat, and aircraft users, and only if the race sanctioning body allows terminal voltage for Lipo above 4.2V, or LIFE(A123) above 3.6V.

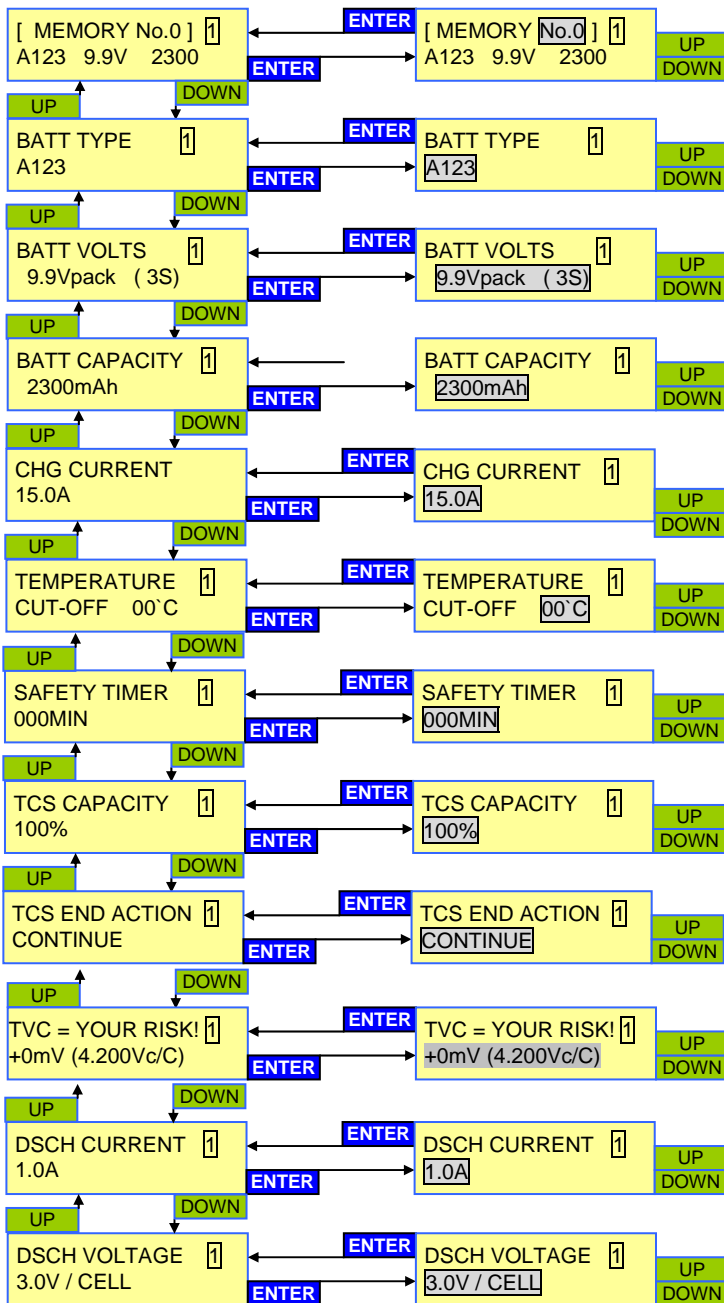
No LIPO battery maker or seller recommends or allows Terminal Voltage to be set higher than 4.200V, to our knowledge. Hyperion does not recommend or allow G3 Lipo Terminal Voltage to be set higher than 4.200V. Therefore any + setting above 0mV VOIDS your WARRANTY for your LIPO battery pack. Whenever ALL cells in a pack exhibit puffing, over-voltage charging is indicated and warranty will not be honored.

WARNING! By setting the TVC to any POSITIVE SETTING above 0mV, you **ACCEPT ALL RESPONSIBILITY** for Damage to your battery, Fire, Injury, and any other Loss which may result. **If you do not agree to accept all risk, DO NOT OPERATE YOUR CHARGER UNLESS ALL MEMORY POSITIONS ARE SET TO DEFAULT 0mV TVC position!** Furthermore, it is your responsibility to insure that no other person uses your charger if TVC is set to greater than +0mV, and to reset ALL memory positions to TVC 0mV default before selling your charger or giving it to others.

Positive settings (+5mV or higher) may be desired by racers looking for competitive advantage, and therefore +TVC has been demanded as a feature by racers. However, it is the official position of Hyperion that Competition Sanctioning Bodies are irresponsible in allowing over-voltage charging via their rulebooks, and therefore that both users and their sanctioning bodies are FULLY responsible for any Loss, Damage, or Injury that may occur due to over-voltage charging of batteries. Let's say it again: If you want to use Positive TVC settings, you may make that choice. But **ONLY** if you personally deem it desirable, **AND** you are taking **FULL RESPONSIBILITY** for **any** and **all results** which may arise. We encourage you to petition your sanctioning body to STOP allowing LIPO terminal voltages in excess of 4.200V, which are both potentially unsafe and without significant benefit, we believe.

See Full v3.2 Firmware manuals for NET3 and DUO3 chargers: <http://media.hyperion.hk/dn/eos/>

V3.2 MEMORY POSITION Flowchart for LIPO/LIFE with TVC Setting (below TCS END ACTION)



NOTE! NEVER CHANGE TVC SETTING UNLESS YOU ARE AN EXPERT USER, HAVE READ THE DETAILS ON PAGE 1, AND ACCEPT ALL RISK OF FIRE, DAMAGE, LOSS, or INJURY WHICH MAY RESULT

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