

Apache 2500 Smart Charger

Compact - Reliable - Intelligent - SAFER

Smart Charger 2500 is intended for charging Li-Poly batteries only!

Please read this manual carefully and use this charger correctly.

Features of the SMART CHARGER 2500

The newest charger for 1-cell to 4-cell Lithium Polymer in series in RC is a recent advance, and a very promising one. One of the restraints to wider adoption, however, has been the poor reliability of charging systems. But, the technology for safe charging of these cells has just taken a major step forward - with the introduction of these new chargers from Apache.

Other charger manufacturers have developed fully automatic detection for cell count to set charge voltage, but none of these systems have been proven reliable. The result, in many cases, has been destroyed batteries, which is both costly and unsafe.

Apache looked at this problem and determined that the best possible system was a combination of manual settings made by the user, plus an extremely sophisticated detection routine to check the voltage setting before charging begins. Using jumpers to set voltage and charge rate also insures that settings do not change inadvertently, as they can with chargers using rotary dials or software systems.

We believe that the Apache SMART Charger line is the safest on the market today. In a recent test of the safety detection circuit they contain, more than 1000 improper combinations of battery and jumper settings were connected, and the chargers were 100% accurate in detecting these errors - emitting a warning light and refusing to charge in each case. Human error is much more likely than charger error, and the Apache oversight circuit is highly recommended insurance for that rare case when your attention might wander for a moment.

Specifications & Instructions

Specifications:

- Chargeable cells: 1 cell to 4 cell.
- Input Voltage: 10.5V ~ 15V
- Charge voltage: 4.2V per cell in series.
- Selectable output voltage: 4.2V(1Cell), 8.4V(2Cell), 12.6V(3Cell), 16.8V(4Cell)
- Selectable output current: 250mA, 700mA, 1200mA, 1700mAh, 2000mAh, 2500mAh.
- Constant battery output voltage maintenance program included.
- Reverse polarity protection circuit included.
- Dimensions: 105mm x 56mm x 16mm

LED Display:

- Green LED On (Left side) : Power On.
- Reverse Polarity of input source: LED will NOT turn ON.
- Reverse Polarity of output source: Red LED Flashes.
- Short Circuit of output tab: Red LED Flashes (The result may destroy only the battery.)
- Incorrect cell count set by jumper: Red LED Flashes
- Incorrect voltage set by jumper: Red LED Flashes
- Charging Mode: Red LED ON
- 80% complete charging: Red LED & Green LED On
- Completed Charging: Green LED ON.

(When the Green LED is ON, the battery is over 99% charged, and it will be switched to Trickle Mode. The battery is now ready to be used.)

Cautions

- SMART CHARGER 2500 is intended for Li-Poly battery only (Please do not charge NiCd, NiMH or PB BATTERY.)
- Charging Rate: 1C - Max
- Please do not use this charger in a small case with inadequate ventilation.
- Please do not disassemble.
- Please never exceed input voltage over 15V.

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Revised by Chandler Griffin, like90, 12/04/04