

## TP-535 LITHIUM POLYMER CHARGER User's Guide

TP-535 charger is specially designed to charge **Lithium-polymer Battery only**.

Do not attempt to charge any other batteries such as Nicd, NiMh and SLA battery.

Please carefully read and understand the safety measures concerning Lithium polymer batteries before charging your batteries. **Do not leave the Li-poly batteries unattended while charging.**

### <Features>

- Ultra high-speed digital power system
- Light weight and fully capable of charging up to 3500mA and 5cells in series.
- Easy setting for various battery pack parameters.
- Reverse polarity protection circuitry (INPUT/OUTPUT)
- Easy monitoring indicators (current and voltage charge status)
- Beeps will sound to alert you with errors in the charging conditions or when charge is completed.
- Safe mode automatic cell count (1-4cell).
- Overcharge protect with TP balancer connected.

### <Specifications>

- Input Power source: 11V-15VDC requires 5A current rate at maximum charge rate.
- Charge Voltage:3.7V-7.4V-11.1V-14.8-18.5V( 1cell-5cells in series )
- Charge Current: 500mA-1000-1500-2000-3000-3500mA
- Full charge voltage: 4.2V per cell
- Overcharge cut off voltage:4.3V/Cell
- Maximum output power:45Watt
- Size:1.62" x 4" x 0.62"(42mm x 102mm x 16.2mm)

### <Charge steps>

- Connect 12VDC power to the INPUT DC-JACK(Red:+ Black-)
- Connect Lithium Polymer battery to the "OUTPUT" terminal(Red+ Black-)
- If you have TP205(V) or TP210V, please connect the data cable at both-ends between the TP535 data port to the balancer as shown in picture-2.
- Select the appropriate amount of charge current rate.
- Select cell count.
- Press "Start/Stop" button.
- The charge yellow LED will begin flashing.
- When the Full LED (Green) is solid ON, charge has been completed.

### <Charge status vs LED indicator >

Charge status	"Charge" LED	"Full" LED	"CC" Charge LED	"CV" Charge LED
Low current charge	Fast Flashing	OFF	Solid ON	Solid ON
Auto-Cell checking	Fast Flashing	OFF	Solid ON	Solid ON
C-C charge	Fast Flashing	OFF	<b>Slow Flashing</b>	Solid ON
C-V Charge	Fast Flashing	OFF	Solid ON	<b>Slow Flashing</b>
Charge complete	OFF	<b>Solid ON</b>	Solid ON	Solid ON

CC-Charge: Constant Current charge

CV-Charge: Constant Voltage charge

**The "Full LED" should be solid ON and beep sounds will alter 6 times in a minute for 5 minutes when charge is complete.**

**Note1:** To activate the over charge safety functions while charging, please connect DL-250A data cable to TP205(V) or TP210V balancer. (Charge will be interrupted if any cell in a pack voltage reaches 4.3V).

**Note2:** Charge will refuse over discharged pack under 3.2V/cell.

### <System Error message>

**Error message 1:** When yellow and green LED flashes with audio alter

Check input power voltage (11V-15VDC) and capacity (required 5Amp current minimum when charged to maximum charge rate). We recommend PB battery or pure DC power source.

Loose Battery connections or wrong polarity Li-poly pack.

Timeout auto-cell detection (Check the Li-poly pack voltage and charge again).

When over discharged pack is connected, this will happen. Please check pack cell counts; if it is the right one, try charging again. (Auto cell count time limited to 5minutes)

**Error Message 2:** CC LED and CV LED flashes and 1 second period audio alter.

This happens when the pack voltage suspects a danger voltage zone. Please check cell count to see if it is correct. If cell count is correct, press "Start" button for 2-3 seconds to continue with charging. Please carefully monitor the charge status.

### <Important safe precautions>

Do not charge in a vehicle

Use auto-vehicle 12VDC battery or a high quality power supply for input power source.

Do not charge in a direct sun light

Do not charge when ambient temperature is extremely high.

Do not select more than 1C current rate (eg: if battery is labeled 1300mAh do not charge higher than 1.3A)

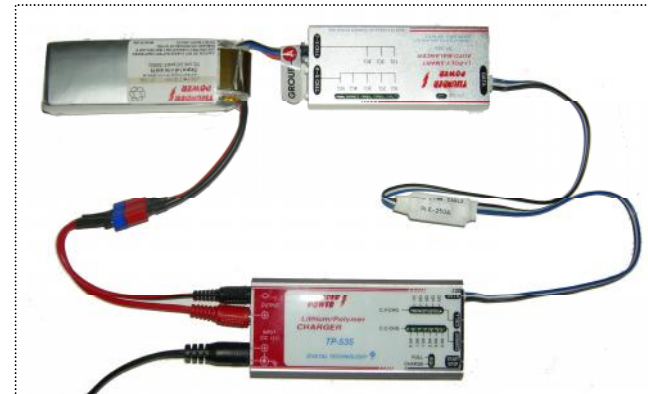
Use and store the charger in a dry environment.

Charge in an isolated area away from flammable objects.

Do not attempt to charge when Li-poly battery pack is hot.

Do not use Auto-mobile battery charger for the input power source.

Balancer charge mode connection Diagram



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