



## Product Detail Form

**Product Name:** TP820CD

**Item Number:** TP820CD (THP820CD)

**Description:** 1-8 CELL LIPO/LIFE, 1-24 CELL NICD/NIMH, 0.20-20.0A 800W DUAL PORT DC CHARGER/DISCHARGER/CYCLER W/BALANCERS

**MAP/Street Price:** \$269.99

### Overview

The all-new TP820CD is the first ever dual port and the most anticipated, most powerful and most advanced multi-chemistry charger, discharger, cyclor and balancer system from Thunder Power RC yet! With up to 800 watts of total charging power, nearly 4-times that of the ever-popular TP1010C, the TP820CD is equipped with two ports that function completely independently to charge, discharge and cycle a wide variety of 1-8S LiPo, Lilon and LiFe (A123) batteries, as well as 1-24 cell NiCd and NiMH along with 6-30V Pb (lead-acid) batteries. The built-in 2-8S LiPo/Lilon/LiFe (A123) cell balancers, one for each port, and included balance connector adapter boards are readily compatible with all Thunder Power balance connectors and the JST-XH balance connectors found on many other batteries.

The dual port TP820CD offers the convenience and flexibility of two separate chargers in a single yet incredibly compact case as a result of its advanced power conversion technology and all-new Thunder Power RC exclusive design. Each port is capable of charging at rates up to 20 amps, even simultaneously depending on input power and charge settings, offering the ability to charge many of the latest-generation LiPo batteries at ultra-fast rates up to 6C and beyond. This means the TP820CD is well-equipped to quickly charge batteries up to 8S on each port, as well as 'split' batteries equipped with interconnect leads up to 16S by using both ports simultaneously.

Popular examples of the incredible charging capabilities of the TP820CD are the ability to charge two 5S 5000mAh batteries, one on each port simultaneously at rates up to 4C, or two 6S 5000mAh batteries at rates more than 3C, to have a complete 10S or 12S 5000mAh battery setup charged in as little as 15 minutes or less time! That's even faster than single port chargers rated at higher current and wattage output, without the need for cumbersome parallel charging and an even more powerful power supply, and without giving up the added convenience and flexibility that independent dual port charge, discharge and cycling functionality offers. And because each port functions independently you can even mix and match charge, discharge or cycling duties of a LiPo motor power battery and a NiMH transmitter battery, a NiCd receiver battery and a lead-acid field box battery or just about any other combination you might have.

Additional features include built-in data logging and viewing on the large, class-leading and easy-to-read 48-character blue backlit LCD screen, internal resistance measurement and an advanced Storage Mode function to automatically charge or discharge LiPo/ Lilon/LiFe (A123) batteries as needed. Other great features also include dual computer-controlled cooling fans and temperature protection, an attractive and extremely durable aluminum case, plus the ability to install future firmware updates available for free download from [www.ThunderPowerRC.com](http://www.ThunderPowerRC.com) using a standard mini USB cable. Best of all these incredible features are all available at a value that's hard to beat while being fully supported and backed by Thunder Power RC's industry-leading 2-year warranty. © 2011 Thunder Power RC

### **Features:**

- Powerful all-in-one dual port charger, discharger and cycler system with built-in LiPo/Lilon/LiFe (A123) cell balancers that offer maximum safety, performance and easy-to-see individual cell voltages
- The included balance connector adapter boards (2pcs) allow the built-in balancers to be used with 2-8S Thunder Power-compatible balance connectors as well as the JST-XH balance connectors found on many other brand batteries from Align, Dynamite®, E-flite®, ParkZone® and more.
- Convenient and flexible dual (two) port design charges, discharges and cycles 1-8S LiPo/Lilon/LiFe (A123), 1-24 cell NiCd/NiMH and 6-30V Pb (lead-acid) batteries on each port independently or simultaneously
- More than double the charging power, up to 800 watts total (400 watts per port), of other similar class chargers with selectable charge rates from 0.2 amps up to 20 amps for each port
- The perfect choice for safe and ultra-fast charging at rates of 3-6C and beyond for the latest-generation LiPo batteries
- Charge two 5S or 6S 5000mAh batteries at rates up to 4C for 10S or 12S battery setup charge times of as little as 15 minutes or less\* – even faster than single port chargers that require cumbersome parallel charging and a more powerful power supply
- Advanced Storage Mode function for LiPo/Lilon/LiFe (A123) batteries will automatically charge or discharge as needed to achieve storage level voltage
- 24 user-programmable memories plus built-in data logging and viewing with internal resistance measurement, battery voltage, input voltage, temperature and more
- Fully-adjustable charge capacity limit, per cell end voltage and low voltage cutoff settings for all chemistries to maximize safety, charge and discharge performance
- Durable and compact aluminum case with dual computer-controlled cooling fans and a large, class-leading and easy-to-read 48-character blue backlit LCD screen
- Wide input voltage range from 10.5-28.0V for higher efficiency and power output when using 24.0-28.0V power supplies
- Adjustable output power distribution per port, input power current limiting and low voltage cutoff settings to maximize performance while also protecting the charger and input power supply
- Future firmware updates can be downloaded for free from [www.ThunderPowerRC.com](http://www.ThunderPowerRC.com) when new features, battery chemistry and other updates are made available and are easily uploaded to the charger using a standard mini USB cable
- Full industry-leading 2-year warranty and support from Thunder Power RC

\*With 24.0-28.0V input and depending on state of charge before charging begins © 2011 Thunder Power RC

## **Images and Captions**

### **Adaptable Balancing**

The built-in LiPo/LiIon/LiFe (A123) cell balancers and included balance connector adapter boards are readily compatible with all 2-8S Thunder Power balance connectors and the JST-XH balance connectors found on many other batteries.

### **Capable Connections**

Separate main power and balancer connectors allow for simultaneous charging and balancing at charge rates up to 20 amps on each port while the programming connector can be used with a standard mini USB cable to install firmware updates.

### **Maximized Protection**

The dual ports function completely independently, and with adjustable output power distribution, input power current limiting and low voltage cutoff you can maximize performance of each while also protecting the charger and power supply.

## **Specifications:**

**Type:** Dual Port Multi-Chemistry DC Charger/Discharger/Cycler with Integrated Balancers

**Battery Cell Counts/Types (Per Port):** 1-8S LiPo/LiIon/LiFe (A123), 1-24 cell NiCd/NiMH and 6-30V Pb (lead-acid)

**Balancer (Per Port):** Integrated for 2-8S LiPo/LiIon/LiFe (A123) with balance connector adapter board for Thunder Power and JST-XH connectors

**Input Power:** 10.5-28.0V DC (40 amps max)

**Charge Power:** 800 watts max (400 watts max per port) w/24.0-28.0V input (see manual for additional information regarding input and output power)

**Charge Current (Per Port):** 0.2 to 20 amps in 0.01 amp increments

**Charge Voltage:** 50% storage and adjustable end voltage for LiPo/LiIon/LiFe (A123), adjustable delta peak sensitivity and end voltage for NiCd/NiMH and end voltage for Pb (Lead Acid)

**Discharge Power:** 100 watts max (50 watts max per port)

**Discharge Current (Per Port):** 0.2 to 10 amps in 0.01 amp increments

**Discharge Voltage:** Adjustable low voltage cutoff for LiPo/LiIon/LiFe (A123), NiCd/NiMH and Pb (lead-acid)

**Cycles:** 1 to 15 times with data stored for all cycles

**Memories:** 24 user-programmable

**Firmware:** User-updatable using USB

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