**For Battery types**: Lithium Polymer (1s to 8s balanced, 1s to 2s unbalanced), Lithium Ion (1s to 8s balanced, 1s to 2s unbalanced), Lithium Manganese (1s to 8s balanced, 1s to 2s unbalanced), A123 (LiFePO4) (1s to 8s balanced, 1s to 9s unbalanced), NiCd (1s to 21s), NiMH (1s to 21s), 6v, 12v, 24v Lead Acid batteries (Flooded, Gel, AGM, SLA)

**Pack capacity:** 20 mAh to 360Ah.

**Input voltage:** 10-48VDC, reverse polarity protected. Each channel may be operated on separate power supplies using 110V/15A isolated circuits for best results. Additionally both channels may be operated on one power supply provided packs on each channel are isolated.

**Input current:** 1A to 40A, software limited

**Power conversion:** Synchronous DC/DC converter, supports multiple switcher frequencies of 31.25 kHz, 62.5 kHz, 125 kHz; user selectable by preset, 85% to 93% efficiency depending on output current

**Output battery charge current:** Adjustable range 10mA to 40A, limited by 40A input current*

**Output battery discharge current:** Internal discharge 10mA to 10A, 95W max
Regenerative discharge 10mA to 40A, 1344W max**

**Continuous max output power:** 408W @ +12VDC input, 1344W @ +39.53VDC

**Cell balancing:** Resolution 78uV (16 bit) for 1s-8s Li or A123 (LiFePO4) balanced charging

**Voltage calibration:** Cell voltage measurements are factory calibrated to a standard traceable to NIST; calibration is to +/- 6 mV

**Current calibration:** Charge current is factory calibrated on a 4A standard; calibration is to +/- 1mA

**Measurement accuracy:**
Voltage resolution: 78uV (16 bit)
Voltage tolerance: +/- 6mV
Charge current: +/- 1%
Capacity added to pack: +/- 1%
Percent capacity ("Fuel"): +/- 5% (with accurate fuel table defined for battery being charged)

**Serial data output:** 19.2kbps, 8 bits, 1 start bit, 1 stop bit, no parity

**Data integrity:** Checksum, CRC checking

**Size:** 10.24 in. (260mm) L x 5.55 in. (141 mm) W x 3.03 in. (77 mm) H

**Cooling fans:** 13 CFM, 50mm diameter

**Heat sink:** Internal 120W aluminum, thin finned

**Output battery connector:** "Cellpro" compatible, JST PA series, 9 position

**LCD:** 2 line, 16 character, light grey/blue backlit

**Footnotes:**
* Please note, for safety reasons, available charger current may be limited for certain battery types and/or charging modes, e.g., non-balanced charge of Li
** Please check bullet number 8 in the section titled "Major Features" below for a detailed description of Regenerative Discharge

**Major Features:**
• Selectable charge rates range 10mA to 40A per channel
• Continuous maximum output power rating, 1344W @ +39.53VDC input voltage, 408W @ +12VDC input voltage
• Using +40VDC to +48VDC input, 1344W output will deliver full current rating (40A) over the full range of output voltage up to 33.6V
• Smart power management allows customer to select between programmable input power sources. Using the Charge Control Software (CCS), choose from several templates to get you in the ballpark, then fine tune the settings. Available settings include power supply input current limit, input low voltage limit, regenerative discharge rate and voltage limit. Dual PowerLab stores 1 set-up for Power Supply per channel and 1 set-up for Battery per channel and asks for verification one time on start-up
• Dual PowerLab does not support charging through node wires only
• Initiate charge, discharge, monitor, and multiple cycles at the DPL or via remote control from the CCS. Graph all major operations when using CCS
• Open Architecture presets allow for customization of any User Preset including show/hide presets on unit, preset name editing, up to 100 parameters control how presets are displayed and charging/discharge/cycling parameter associated with particular batteries and/or charging strategies. Unit includes 25 user preset banks pre-loaded for most major battery type/chemistries, plus 50 library presets
• 0.1mohm voltage resolution allows accurate four point internal resistance measurement of each cell
• Environmentally friendly, regenerative discharge capability of up to 1344W. Unlike traditional methods of discharge, which deplete the output battery's energy in the form of heat across a transistor, regenerative discharge takes most of that energy and puts it back into the input battery. In other words, when you discharge your LiPo for storage, you will be re-charging your Lead Acid input battery. The total amount of power that you can achieve is limited only by the amount of current that your input battery can accept, or 1344W, whichever is lower
• DPL is also equipped with a traditional, 95W internal discharge capability which is non-regenerative
• Over-sized internal heat sink
• Twin (per channel) 10AWG silicon input power cable with EC5 connector
• Sendust core toroid capable of 40A continuous input current requirement for maximum output specifications

**Other Features:**
• Supports Cellpro (FMA) and JST-XH wiring modes
• Adapters available for all popular R/C battery brands
• 2 line, 16 character backlit LCD per channel
• Available opto-isolated PC interface and free Charge Control Software (CCS)
• Intuitive 4 button user interface per channel
• Sleek and attractive high-impact ABS enclosure for maximum airflow efficiency
• Sturdy Aluminum top panel with reliable, recessed tactile buttons
• Quick "preset over-ride access" to common charging parameters like setting charge and discharge current and operational modes of charge/discharge/monitor/cycle(s)
• Additional advanced options menu for adjusting in-depth charging parameters and global options at the unit
• GUI PC software (CCS) allows access to 25 User Presets and 50 Library Presets per channel stored in the unit or available in unlimited number on the P.C. When using both channels, launch two independent instances of the CCS
• Free and reliable firmware updates for the life of the product using the CCS. Firmware updates accomplished on each channel independently
• Automatic Low voltage restore for recovering damaged or over-discharged packs
• Programmable options allow speaker ON/OFF or volume, LCD contrast, customized welcome screen, and much more
• Cold weather mode reduces end-charge voltage; parameters adjustable by customer including ON/OFF, end-charge voltage offset reduction, and temperature
• Expansion Channel mode whereby one DPL primary (master channel 1) can control the expansion channel 2, send over preset information, control all aspects of charging and balancing. This feature is perfect for charging multiple packs of same chemistry and capacity using multiple devices such as split packs connected in series during operation all at unbelievable rates
• Auto charge mode available utilizing advanced fuel gauging technology
• Customizable fuel table lookup values based on presets. Fuel tables can be created using a Fuel Table Wizard in the CCS and applied to individual battery brands by presets for improved accuracy
• Industry's first Safe Parallel adapters available to maximize available power potential. P.C. software supports up to 9 packs in parallel per channel depending on adapters used. The DPL supports parallel, charge, discharge, cycle, or monitor on each channel. Adapters are peripheral products, available separately, or included as a part of DPL combos