

C8000

Advanced Battery Analyzer

Powered by PC-BatteryLab™ Software

Part Number: 11-308-0000

- **Created For Advanced Users:** a multi-purpose tool that allows you to optimize batteries at every stage of product life.
- **The Ultimate Battery Lab Tool:** create your own lab system and transform your C8000 into the command center
- **Born Versatile:** choose, characterize, and maintain your batteries with simulation, Life Cycle Testing, and built-in and custom programs



DON'T LET A BATTERY STOP YOU



ACCESSORIES

Included: PC-BatteryLab™ software, 1.8m (6') power port cables (4x), 1.8m (6') auxiliary data cables (4x), dual port power cable (DPPC), 3m (10') Ethernet cable, AC power cords (x3: N.America, Europe, UK), rack mount brackets.

Sold Separately: **Adapter Unit**
For SnapLock™ Adapters
Part# 07-510-0000



Load Capture Unit (LCU)
Captures load signatures of up to 100A and digitizes the information for replay in the C8000.
Part# 11-308-0011



Third Party: Thermal chambers, high power digital load, and most digital and analog i/o devices.

PROGRAMS

- 🔧 **SERVICE PROGRAMS:**
Auto, Charge, Prime, Extended Prime, Boost
- 📊 **RAPID TESTS:**
Ohmtest™, Impedance
- 📈 **ADVANCED PROGRAMS:**
Waveform Tests, Run Time, Self-Discharge, Discharge Only, Life Cycle, CDMA, Load Capture (requires BatteryLab + LCU)
- 📡 **SMBus PROGRAMS:**
Battery Info, Fuel Gauge Calibrate, SMB Charge, SMB Discharge
- 📄 **CUSTOM PROGRAMS:**
Create programs for your specific needs. Maximum Steps = 100. Requires PC-BatteryLab™.

ELECTRICAL SPECIFICATIONS

- **Battery Chemistries:** all standard types: Li-based: Li-ion, Li-Phosphate; Lead Acid; Ni-based: NiMH, NiCd
- **Battery Capacity Range:** 50mAh to 1000Ah
- **Battery Voltage Range:** Nominal 1.2V-36V (max 45V total) supports serial connection of: Up to 10 Li-ion cells (3.6V/cell); Up to 18 Lead Acid cells (2.0V/cell); Up to 30 Nickel-based cells (1.2V/cell).
- **Maximum Charge Power:** 100W per channel, 400W total
- **Maximum Discharge Power:** 80W per channel, 320W total. 160W per channel pair using Dual Power Port cable. External Load may be used to increase discharge up to 2400W.
- **Maximum Charge/Discharge Current:** 30mA to 10A set in 1mA increments. 20A maximum discharge rate using Dual Power Port cable. External Load may be used to increase discharge up to 240A
- **Output Frequency:** Square 2kHz (500 microseconds)
- **Accuracy:** Voltage = 0.1%, Current = 0.25% full scale
- **Power Management:** Current automatically scaled down if power limits are exceeded. Message indicates scaled test.
- **Charge Methods:** Charge methods are dependent upon chemistry: *Li-ion & Lead Acid* = constant voltage with a current limit. *Nickel-based* = constant current with optional Reverse Load Charge method.
- **Discharge Methods:** Constant current / Constant power
- **Input Power:** 100-240 VAC, 50-60 Hz

PC-BATTERYLAB™

- **System Requirements:** PC with the following available: Windows XP O/S; Ethernet connection; 1.2 GHz processor; 512 MB RAM; 10 GB storage memory
- **# Test Systems:** Each BatteryLab license operates: Up to 8 C8000 test systems; Up to 32 individual batteries

BATTERY & DATA INTERFACES

- **Channels:** 4 Independent Channels each including: 1 Battery Port + 1 I/O Port.
- **Battery Ports (front panel):** 4 Ports each including:
 - Battery Positive (+); Battery Negative (-);
 - Sense Positive (+); Sense Negative (-);
 - Thermistor Input; Thermistor Ground.
- **Input/Output (I/O) Ports (front panel):** 4x DB25 Type, each including:
 - 4 Differential Analog Inputs: 0-5V, 0-10V, or 0-15V;
 - 4 Digital Inputs: 0-5V;
 - 2 General Purpose Analog Outputs: 0-5V;
 - SMBus Enabled: 5 Possible Termination Signals.
- **Active Data Ports (back panel):** Ethernet 10/100 MB for connection to PC; Designated Serial Port for External; Load Designated Serial Port for Environmental Chamber
- **Power Port Cable (Standard) - power:** 4 pcs. 1.8m (6') with alligator type clips
- **Auxiliary Cable (Standard) - data:** 4 pcs. 1.8m (6')
- **Dual Port Power Cable - power:** 1.8m (6'), connects to channels 1+2 or 3+4 to increase current capability from 10A to 20A
- **SnapLock Battery Adapter Unit:** 2-bay unit connects to C8000 standard cables supports SnapLock Battery Adapters (4-Wire type only)

DATA ACQUISITION

- **System Sample Rate:** 500 microseconds
- **Terminal Data (last 500 samples) Capture Rate:** 2-200 mS
- **Capture/Display Rate (non-termination):** 1-60 S
- **Load Capture:** Minimum Sample Rate Increment = 500 microseconds; # of Samples = 10-500

HARDWARE SPECIFICATIONS

- **Dimensions:** 480mm x 380mm x 140mm (18.9" x 15.0" x 5.5")
- **Weight:** 15.5 kg (34 lb)
- **Mounting Options:** Desktop or 19" (483mm) 3U Rack-mount (brackets included)
- **Display:** 5.7" (145mm) QVGA 320x240 graphics with backlight
- **Recommended Operating Temperature:** 5 to 35°C (40 to 95°F)
- **Recommended Storage Temperature:** -20 to 70°C (-4 to 160°F)
- **Safety Certification:** CSA, UL, CE
- **Environmental Certification:** RoHS, WEEE
- **Security:** Password protection
- **Warranty:** *Standard:* 2 year limited warranty (materials & workmanship). *Extended (Optional):* Additional 2 years (total 4).
- **Calibration:** Recommended factory calibration every 1 year. Contact Cadex for further information
- **Upgrades:** Firmware upgrades enabled by BatteryLab software

EXTERNAL TEST EQUIPMENT

- **Environmental Chambers:** Models supported: Thermotron 2800/3800/8800, Test Equity Watlow 4
- **External Digital Loads:** B&K Precision Programmable DC Electronic Loads 8500 Series models supported:
 - 8510 (0.1V-120V/120A/600W);
 - 8514 (0.1V-120V/240A/1200W);
 - 8518 (0.1V-60V/240A/1200W);
 - 8520 (0.1V-120V/120A/2400W)
- **Load Capture:** Cadex Load Capture Unit (LCU)

ANALYZERS

CHARGERS

TESTERS

BATTERY PACKS

CUSTOM SOLUTIONS



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