

# The UBA5 EP44

## A Professional Battery Analyzer For Less Than You Thought



The Ultimate Battery Analyzer is a professional battery analyzer that uses the versatility and power of your PC. It tests all battery chemistries from single cells up to 37V packs and from 20mAh to over 120Ah.

The UBA connects to the serial port of your PC (or USB with adapter) and will analyze, charge, cycle and recondition (if possible) your batteries. Its two channels, each with their own programmable load and charger, can operate independently or in unison for higher current.

### Never again will you forget or lose the results of a battery test.

All test results, including the battery voltage and current (and optional temperature), are stored in a standard data file for future reference, analysis or comparison. This enables the viewing and printing of any previous test results along with the charge and discharge graph.

### Operation is simple and automatic, but you are in control.

Connect your battery to the UBA and tell it the type of battery being tested. The software selects the optimum discharge and charge current, depth of discharge, and charge method. Of course, you can override any of these settings. The

UBA will then analyze your battery and record to disk all the test results.

### Test results available in real time.

As part of its advanced test procedures the UBA provides battery test status information in real time. At the conclusion of the test, a host of performance data including battery capacity, energy, and midpoint voltage are displayed and a hard copy generated.

### Tests under actual field conditions.

The UBA can test the battery with a current-time profile that simulates actual use. This increases the analysis accuracy over fixed current units.

### Standard battery input connectors.

With its industry standard banana jacks, the UBA connects directly to batteries or it can use any of the many battery cups already available.

### Programmable parameters and upgradable software protect the UBA from obsolescence.

Analyzers that allow changing the battery parameters are the most flexible and do not become obsolete when new battery types are introduced. Battery voltage, current, and chemistry can be quickly changed with the UBA.

### Cost Effective.

The UBA has no display and no keyboard. It doesn't need any. Everything is controlled by your PC. This elegant solution gives you full control over the battery analysis.

### Expandable test station.

The UBA is designed to link together with other UBAs to create any size test station. No additional cables or S/W required.

Vencon Technologies has achieved international recognition for its battery testing products. A partial list of our satisfied customers include:

- Energizer Power Systems
- Sony Electronics
- Siemens Medical
- Intel Corp.
- Government of Canada
- Royal Canadian Mounted Police
- NASA
- Israel Defense Force
- U.S. Army & Navy
- U.S. DEA & CDC
- University of California

### Support.

On our web site you can find the latest software along with application notes. All our products come with unlimited free technical support.

### **Specifications:**

The UBA5-EP44 comes with two battery input channels under full independent software control. UBA5-EP44s can be combined for more channels or higher currents, or customized for lower currents.

#### **Batteries that can be tested:**

Chemistry	Lithium-ion/polymer/iron phosphate, NiCd, NiMH, lead acid, and all primary cells.
Voltage	Two ranges: 0 to 6.5V & 0 to 44V (accuracy $\pm 0.2\%$ rdg $\pm 20\text{mV}$ ) <ul style="list-style-type: none"><li>○ Li-ion cells: 1 to 10 cells (in series)</li><li>○ NiCd, NiMH: 1 to 25 cells</li><li>○ Lead acid: 1 to 17 cells</li></ul>
Capacity	20mAh to over 120Ah

#### **Internal Load: (one per channel)**

Type	Programmable constant current or pulse discharge.
Current	12mA to 3A in 12mA increments (6A with both channels combined)
Load terminated by any of these conditions	Cut off voltage, maximum time, maximum capacity, or temperature with optional temperature probe.
Power limit	45W (90W with both channels combined)
Accuracy	$\pm 0.5\%$ reading $\pm 2\text{mA}$
Resolution	0.1mAh

#### **Internal Charger: (one per channel)**

Type	Programmable constant current, constant voltage, duty cycle or any combination.
Current	1mA to 2.0A
Charge terminated by any of these conditions	Maximum time or capacity, minimum current (for constant voltage charging) peak/deltaV (for NiCd & NiMH) and temperature (absolute or rate of change with optional temperature probes).

#### **Miscellaneous:**

Battery input	Banana connectors (two pairs of cables with alligator clips included).
Accessory ports	Two. Allows expansion with analog inputs and digital outputs lines.
Power input	15 to 20VDC 300mA (supplied with UBA5-30V)
Power input for charging	up to 48V power supply required for charging (not included)
Approvals	CE and FCC, RoHS and WEEE compliant.
Size, weight:	130mm x 170mm x 75mm (WxLxH), 820g
Warranty	Two year parts and labour against defective materials and workmanship.
Software	WinXP to Win7 & Linux-Wine UBA Console software included.

### **Accessories:**

- Temperature probes (for battery temperature monitoring and charge termination).
- Two opto isolated digital outputs under programmable control.
- Technical reference manual (includes schematics and the communication protocol).

### **Available from:**

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