

# The UBA5-24A

## A Professional Battery Analyzer For Less Than You Thought

The Ultimate Battery Analyzer 24A is a professional battery analyzer that uses the versatility and power of your PC. It tests all battery chemistries from single cells to 20V (or more) and from 500mAh to over 400Ah.

The UBA connects to the serial or USB port of your PC and will analyze, charge, cycle and recondition (NiCd/NiMH) your batteries. Its two channels, each with their own programmable load and charger, can operate independently or in unison for 24A of load 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 UBA5-24A comes with two battery input channels under full independent software control. UBA5-24As can be combined for more channels or higher 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 and 0 to 24V (accuracy $\pm 0.2\%$ rdg $\pm 10\text{mV}$ ) <ul style="list-style-type: none"><li>○ Li-ion cells: 1 to 5 cells in series</li><li>○ NiCd, NiMH: 1 to 16 cells in series</li><li>○ Lead acid: 1 to 9 cells in series</li></ul>
Capacity	500mAh to over 400Ah

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

Type	Programmable constant current, constant power or pulse discharge
Current	40mA to 14A in 40mA increments (24A using both channels)
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 $\pm 6\text{mA}$
Resolution	1mAh

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

Type	Programmable constant current, constant voltage, duty cycle or any combination
Current	1mA to 2.0A (4A using both channels)
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 26VDC, 4.5A max. (120/240VAC universal power supply available).
Approvals	CE and FCC, RoHS and WEEE compliant
Size, weight:	130mm x 170mm x 75mm (WxLxH), 900g
Warranty	Two year parts and labour against defective materials and workmanship
Software	WinXP to Win10 & Linux-Wine UBA Console software included

**Model: UBA5-24AGP** includes a 19V 4.5A power supply.

#### **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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