

The UBA5

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 will test all your lithium ion/polymer, NiCd, NiMH, lead acid and primary batteries from a single cell to 20V and from 20mAh to 120Ah.

The UBA connects to the serial port of your PC (or USB with adapter) and will Analyze, Recondition, Charge and Cycle your batteries. Its two independent channels, each with their own programmable load and charger, are under full PC control.

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 data file for future reference, analysis or comparison. This enables viewing and printing 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.

Battery 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 tests the battery with the actual current used under field conditions. This increases the accuracy and reduces the cycle time compared to fixed current units.

Standard battery input connectors.

With its industry standard banana jacks, the UBA will connect to batteries directly 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 saves you money and explains the low cost compared to other professional units, but most importantly, it gives you much more control over the battery analysis.

Expandable.

By linking UBAs together you can test many batteries simultaneously or increase its current capabilities.

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, or email or call us for free technical support.

Specifications:

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

Batteries that can be tested:

Chemistry	Lithium-ion, NiCd, NiMH, lead acid, and all primary cells.
Voltage	Two ranges: 0 to 6.5V & 0 to 24V (accuracy $\pm 0.2\%$ rdg $\pm 10\text{mV}$) <ul style="list-style-type: none">○ Li-ion cells: 1 to 5 cells in series○ NiCd, NiMH: 1 to 16 cells in series○ Lead acid: 1 to 9 cells in series
Capacity	20mAh to 120Ah (or more)

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 included).
Accessory ports	Two with programmable analog inputs and digital outputs lines.
Power	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), 820g
Warranty	Two year parts and labour against defective materials and workmanship.
Software	Win9X/NT4/2000/Vista/Linux-Wine UBA Console software included.

Notes:

- You can link any charging or load actions together to create a custom algorithm.
- You can combine channels to increase the charge or load current and power limits.

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:

Vencon Technologies Inc.
179 Patricia Ave, Toronto
Ontario, M2M 1J6 Canada
Tel: (416) 226-2628, fax: (416) 226-5196
<http://www.vencon.com> sales@vencon.com