

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 NiCd, NiMH, lead acid and lithium ion battery packs from a single cell to 20V and 10mAh to 100Ah.

The UBA connects to the serial port of your PC 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.

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:

- British Columbia Hydro
- Energizer Power Systems
- Government of Canada
- Israel Defense Force
- NASA
- Royal Canadian Mounted Police
- Sharp Electronics
- Sony Electronics
- Siemens Medical
- Texas Instruments
- United States Government
- United States Navy
- University of California
- Intel

Support.

On our web site you can find the latest software along with applications notes.

Specifications

The UBA4 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	NiCd, NiMH, Lead Acid, Gel Cell, Li-ion and all primary cells.
Voltage	High range: 0 to 24V, Low: 0 to 6.5V (accuracy $\pm 0.1\%$ full scale) <ul style="list-style-type: none">o NiCd, NiMH: 1 to 16 cells in serieso Lead Acid, Gel Cell: 1 to 9 cells in serieso Li-ion cells: 1 to 4 cells in series
Capacity	20mAh to 100Ah

Internal Load (one per channel)

Type	Programmable constant current. (pulse discharge available as upgrade)
Current	10mA to 2500mA in 10mA increments.
Load terminated by any of the following conditions:	Cut off voltage Maximum time or maximum capacity
Power limit	18W
Accuracy:	$\pm 0.5\%$ full scale
Resolution	0.1mAh

Internal Charger (one per channel)

Type:	Programmable constant current, voltage and duty cycle.
Current:	10mA to 2.0A in 20mA increments.
Constant Current charge terminated by any of the following conditions:	Peak (delta V) Maximum time. Maximum charged capacity Temperature (limit or dT/dt - with optional temperature probes)
Constant Voltage charge terminated by any of the following conditions:	Minimum current. Maximum time. Maximum charged capacity

Miscellaneous

Battery input:	Banana connectors (two pairs of plugs included).
Accessory ports:	Two (extra analog and digital lines for accessories).
Power:	DC: 12V to 26V, 4.5A max. (120/230VAC universal power supply available).
Approvals:	CE and FCC
Size, Weight:	130mm x 170mm x 65mm (WxLxH), 550g
Warranty:	Two year parts and labour.
Software:	Win9X/NT4/2000 UBA Console software included.

Notes:

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

Accessories:

- o Temperature probes (for battery temperature monitoring and charge termination).
- o High current discharge module (controls up to 50 Amperes discharge current)
- o Third electrode low current amplifier (current less than 10pA or even less than 100fA)
- o Technical Reference Manual (includes schematics and the UBA4 serial communication protocol).

Available from:

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