

FAQ

**Computerized Battery Analyzer for Any Battery
pack up to 150W or 40 Amp
(CBA-III)**



AA Portable Power Corp

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WHY DO I NEED A CBA?

There is no better way to know whether or not a battery will fail prematurely than doing a true capacity test. A CBA is the only inexpensive product that does a lab quality test that anyone can do. The computer does all the work

With a CBA you will find out if you "got what you paid for" when buying batteries. With a CBA you can intelligently make your next battery purchase.

An RC pilot using a CBA can be sure that the next flight will not end up with a lost model because of a bad transmitter or flight battery, RC competitors can accurately select a winning pack.

Unlike voltmeters or simple battery testers a CBA enables anyone, regardless of knowledge, to do a true lab. test of any battery. You will be able to tell at a glance if a battery meets specs, needs to be rejuvenated or should be thrown out.

With a CBA and a charger you may cycle, condition, balance or rejuvenate battery packs and then see the results graphically displayed.

If you use batteries in critical applications, a CBA is a must have.

CAN I REALLY TEST ANY TYPE OF BATTERY?

Yes, any chemistry (type) any size (capacity) battery may be tested.

The only battery limit that a CBA has is that the battery voltage must be less than 48 volts.

A CBA is primarily designed to test rechargeable batteries. Since it does a true discharge capacity test, disposable batteries will have to be thrown away after a complete test. Over time, it may however, more than pay for itself with the savings of knowing which brand of disposable batteries are best. The average household spends hundreds of dollars per year on throw away batteries.

"A CBA WILL TEST UP TO 40 AMPS OR 150 WATTS WHICHEVER IS HIGHER", WHAT DOES THIS MEAN?

It means exactly what it says. Those are the maximum ratings for discharge current and/or power dissipation of a CBA, never higher. This does not mean that you can test any battery at the maximum rates, there are considerations and limitations that depend on both the CBA and the battery being tested.

Do not expect to test a battery at a rate higher than a battery is capable of, many batteries simply cannot supply anywhere near 40 amps or 150watts power without damage or destruction. Our documentation explains how to do proper tests. Our software is intended to be fail-safe to prevent mistakes. A CBA should be fool resistant but not idiot proof as the CBA software guides the user to do tests correctly and makes it almost impossible to damage the CBA or the batteries it tests.

Our maximum power dissipation of 150 watts can be maintained throughout the test of a 1 amp-hour or less battery only. A battery with a capacity of 1 to 3.5 amp-hours may be tested up to 125 watts and larger batteries may be tested as long as needed at 100 watts. To determine

the wattage for a given test multiply the no load battery voltage in volts times the discharge current in amps. Our software does this calculation automatically and will make sure you stay within these limits. For example: you may test a 1000 ma-hour 8 cell 9.6 volt NiCad or NmHi pack 15 amps or which equals approximately 150 watts. A big 75 amp-hour automotive Lead Acid battery can be tested at 8 amps, roughly 100 watts. This means the car battery would take about 10 hours to test and the smaller battery about 8 minutes.

40 amps can only be reached and maintained throughout a full test with a battery that starts that test at more than 3 volts. To test near 40 amps the battery must be capable of this discharge rate and also have a very low internal resistance. Although 40 amps is possible we did not intend users to routinely test at that rate, it is the absolute maximum.

DO I NEED TO BE TECHNICIAN OR ROCKET SCIENTIST TO USE A CBA

No, not at all. You only need to know the basic information about a battery that you wish to test. You must know the type of battery (chemistry), the capacity in amp-hours and either the voltage or the number of cells. The CBA will figure out the rest and run a test automatically. A CBA and it's companion software is designed so most anyone can do a laboratory quality test and verify that a battery meets its specs or a CBA makes easy to compare battery performance between different batteries.

Test results are displayed graphically on your computer screen, simply look at the graph to read the capacity in amp-hours and see if that meets its ratings. If it does not come up to full capacity specs you will know how bad the battery is and you can determine if you should dispose of the battery.

Reconditioning a suspect battery is easy with a CBA, just charge it again and test it again. Each time you repeat this process the battery may get better and better. With each test graphically compared to the last, you will literally see the improvement. After trying reconditioning, if it does not improve and is still far below capacity you can be sure that battery will give you a problem soon.

To compare one battery to another simply test them both at the same test rate, Whichever battery has graph on top is the winner and you will see by how much, both graphically and with voltage and capacity readings.

All you need to know is the basic battery information (type and capacity rating) and a CBA does everything else.