Multiple CBA units on One PC

JUNE 2025

License

Standard software features:

To use multiple CBA units on the same PC using the standard tests you must have at least one CBA IV or CBA V connected to the PC.

If all the CBA units are CBA III or older you must purchase a special license from West Mountain Radio. This license will be tied to one serial number unit that must always be connected to the PC to use it.

Extended software features:

To use multiple CBA units on the same PC using the extended tests you must have a extended license for each unit connected to the PC unless you buy the following license.

WMR offers a extended multi license that will work for any number of CBA units connected to the PC. Giving all units extended feature tests. This license will be tied to one serial number unit that must always be connected to the PC to use it.

To purchase a special CBA license visit https://www.westmountainradio.com or contact us.

Additional system requirements

In addition to the normal PC requirements care must be taken to ensure proper power and isolation are available.

A standard USB port provides a half Amp to the USB device. On a desktop PC usually each port can provide that half Amp. However if you use a USB hub to get the needed additional ports it is common that the half Amp is split between each port. Look for a hub that has a separate power supply as that is a indicator that the hub may supply at the half Amp to each port. Check the manual to verify. You may always need a powered hub for a laptop. For a desktop consider an internal PCI card with fully powered ports.

If your batteries under test are connected only to the CBA and nothing else, not even each other, then you will have adequate isolation. On the other hand if the batteries are connected in series and there is one CBA unit connected to each battery or cell then there is an electrical connection between the CBA's and that can damage the CBA. Another problem would be if independent batteries each have their ground leads also connected to earth ground.

If the above isolation is not possible you may be able to use an isolated hub that isolates the ground and power on each CBA from the other. Make sure your HUB in this case isolates not only the computer to CBA but also each CBA from one another.

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Connection and Installation

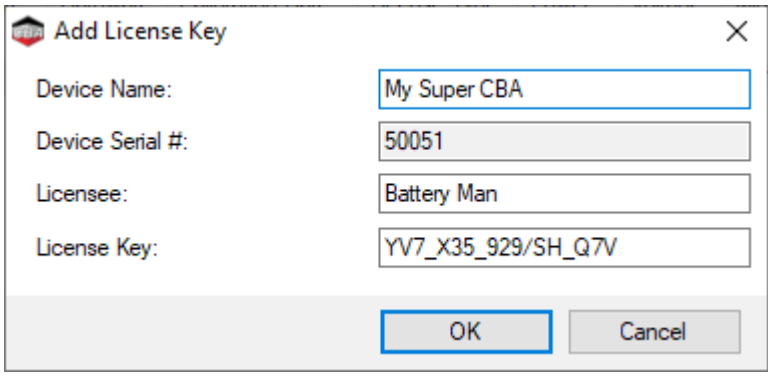
Before installing a Multi CBA system you should have already installed and run a stand-alone system with one CBA. You should also have studied the rest of the help files and become familiar with the operation using one CBA.

Go to “Help”, “About CBA” and check that you have our CBA software version 2.1.0.14 or later. If you have an earlier version, visit our web page and download and install the latest version update.

Connect each additional CBA, one at a time. Please wait for the message to pop up in the bottom right corner of the screen, “Your hardware is ready to use”, before plugging in the next CBA. When you have all CBAs connected and installed, check TOOLS > CBA DEVICES to see that the correct number of CBAs appear.

Extended Software

If you bought additional licenses use TOOLS > CBA DEVICES to setup those licenses. For each license you have select the CBA with that license serial number and click the License button. Copy and paste the licensee name, CBA Serial # and license code into the registration screen (if you manually type in be sure that it is exactly correct). The program might prompt you to close and re-start the program for the changes to take effect on some versions.



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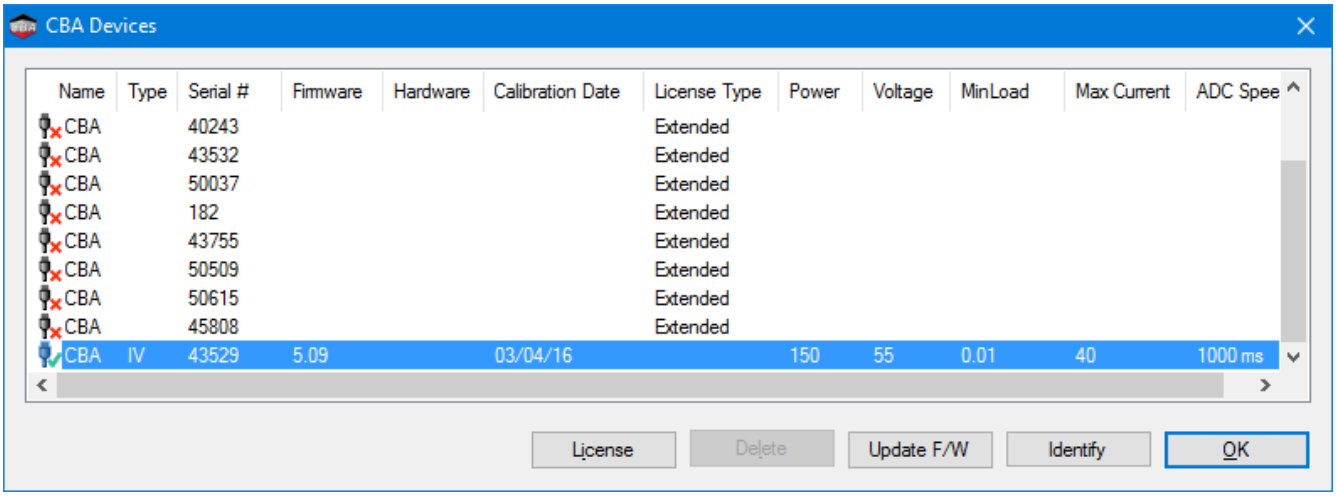
Organize

You are now ready to organize your CBAs. In order to keep track of which CBA is testing which battery we suggest that you physically number or name each CBA. You can use the software to name each CBA so the matching number or name appears in the program.

Since the program initially “finds” the CBAs by serial number, it does not matter how you have plugged them or how you arranged them on your bench. It is only necessary that each CBA is “Named” with the same number, both physically and in the software.

To match the CBAs physical numbering with software numbering, click “Tools”, “CBA Devices”. You will see a table containing the “Licensed CBAs” and “Unlicensed CBAs” with serial numbers next to each. Select the first CBA and click on the Identify button. Look to see which number CBA has the LED blinking. Double left click the name for that one and type in a two digit number (i.e. 01,02…) that corresponds to the physical numbers you have numbered the CBAs with. Do this for all of the CBAs.



Note: Once you have done this naming, if you unplug any or all CBAs and you plug them back in, even differently, they will remain correctly named.

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Testing Multiple Batteries

You are now ready to test batteries. It is necessary that you are already familiar with testing batteries one at a time with a single CBA. If not, go back and read the help for using the CBA system for battery analysis.

A very important issue using the CBA, especially with multiple CBAs, is to correctly keep track of your tests. Our software deliberately requires a test name for each test. By default it uses that name for the file name when you save the completed test file. However, you may change that file name when you save the test, if you wish.

The logical way to keep track of tests is by using a unique number for each battery. If you're testing the same batteries over and over you may wish to include the cycle number as part of the test name. You might also wish to make the date or time part of the name but Windows will put time and date stamps on the saved file, but this is not visible on a graph. This version of the software does allow putting notes on a graph with date and time or you could make that information part of the test name. Be certain to choose test and file names that allow you to keep track of the test data in a way that is satisfactory for your needs.

To start a new test, from a blank screen, click "Test" and then "New Test". This will bring up a small window asking which CBA you wish to use. Pick one of the CBAs listed and a "New Test" window will pop up along with a tabbed blank graph window behind it. Connect the battery, select a test profile or type in test name test parameters, for the battery, and start the test.

Continue until all of your batteries are being tested or all the CBAs are in use. In a given time the first test will complete and the corresponding tabbed graph will pop up over the others, a completed test window will pop up and the software will "beep" your computer speaker until you save the test and disconnect the discharged battery.

You can use VIEW > VIEW ALL to get a live overview of all running tests.

NOTE: You will notice that the test graph tabs come up in the order that you select the next test. If you would like to re-arrange the order you may click on the tab with your left mouse button, holding it down, and drag the tab over to a new location.

When a test is completed on a CBA you may start testing another battery while the other CBAs are running. Disconnect the battery and click "Test", "New Test". It will remind you to save the file. Connect the next battery and type in the test info and start the test. Do this procedure in order as indicated for best results.

NOTE: If you are in the process of connecting another battery and starting a new test when a test completes, it will pop up a notice that a test is completed and switch the tab to the completed graph. If this happens simply close the completed test notice window and finish starting the new test. Even though the tab corresponding to the new test has switched to a completed test you may still start the one you were trying to start where you expected.

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