

The **Battery Life Saver**<sup>TM</sup>  
electronic device  
The Most Effective Desulfator available



### Does This Really Work?

I couldn't help but wonder if the BLS really works. I'm a boater so one of the things that you have to do every three years is replace the batteries, right?. In my boat I have three batteries, two starting batteries and one house battery. When I purchased this boat in May of 2007 three brand new NAPA #8270 Dual Purpose Premium Marine/RV were installed. In our neck of the woods our boats are stored from October to May.

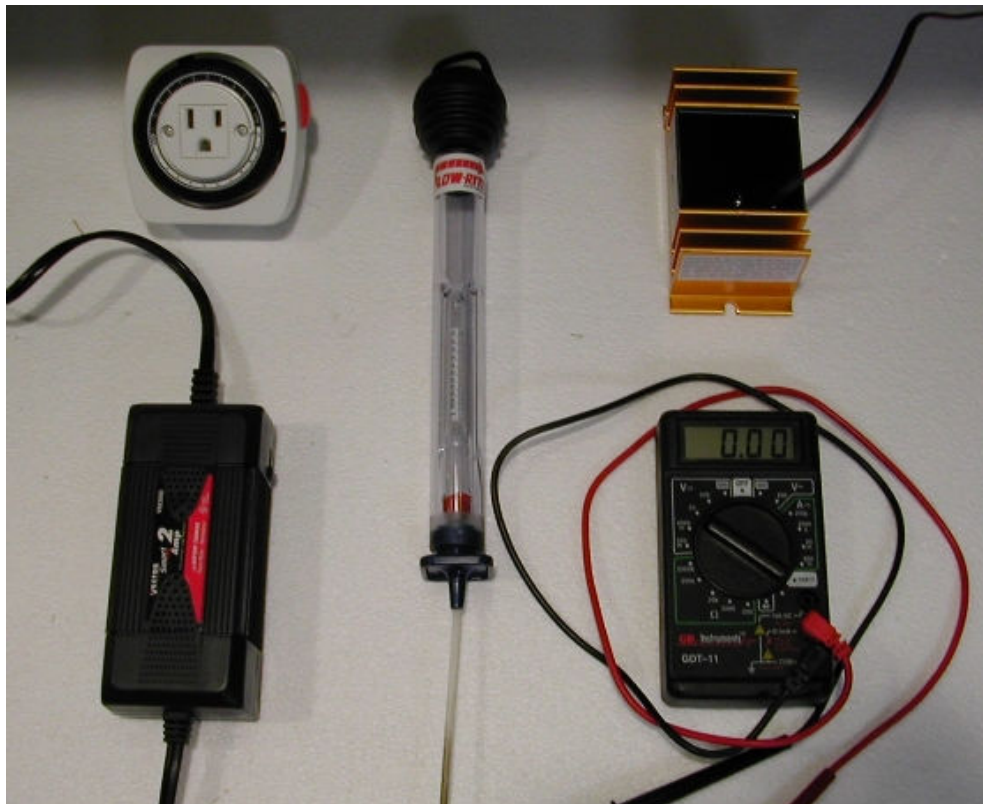
The rest of the time they are mostly sitting tied up to a dock plugged into a charger. So for at least six months the batteries see no activity and the other six months that are getting charged. Near the end of the summer I started having problems starting one engine. I checked the battery voltage on each battery. It was right where it was supposed to be. I was thinking, bad starter, bad battery switch, water in the engine, everything but the battery. After being stranded twice with only one motor starting I had to do something.

I removed the battery that seemed to be the problem and took it over to the NAPA store. They have a simple device that measures voltage and cold cranking amperage. As I said the voltage was right on.

However with their tester the CCA was reading only 430. This is about 70% of the 625 CCA rating at 0 degrees F. So, even though the voltage was reading OK, the actual power in the battery was low. Out of desperation I ordered a new battery. That is what we usually do, right? So I got my new battery, installed it and the motor started just like it is supposed to. I was a genius!

I got to thinking, I sell these BLS units that are supposed to restore a battery back to life by removing sulfate crystals from the surface of the battery cell plates. What if I purchase one of these just like a regular customer and see if it really works. So I ordered my "Battery Solver Package" for a single 12V battery and waited for it to arrive.

It came in a nice box with all the stuff required to fix up a battery. In addition to the Battery Solver Package I also needed a "[Hydrometer](#)" and a Volt Meter to do my test so I could tell you if it was really working. I was ready to see if this electronic gizmo really worked. I already had a volt meter but had to order a Hydrometer form Flow-Rite Controls. I was ready to begin my test.



Without thinking a lot about how I was going to do this test I proceeded to follow the easy to read directions included in the BLS Package. Now I didn't follow the directions exactly as they specified. It was over the weekend and there was football and sleep and other stuff going on. The time elements specified for the LIFE SAVING adventure were not exactly as you would say, according to hoyle. But I though they were close enough. The rejuvenating process was begun on a Thursday morning and finished on a Monday afternoon in about 100 hours.

The interesting thing about batteries is that most of us common folks don't really understand what is going on inside of them. We just use them and use them until they quit and then we buy a new one and start all over again. This makes the battery supplier happy and also makes us happy. We turn the key and off we go again. However I guess the folks at BLS really do understand what is going on inside these black cases and are able to scientifically restore them to a like new condition.

Now the BLS part of this kit is a unit that actually uses the power of the battery to send high frequency wave through the battery. These high frequency waves actually melt the sulfuric crystals that are growing on the plates and returns them into solution. It keeps doing this over and over all the time that it is attached to the battery. This is different than the process called equalizing. Equalizing is really charging the battery at a higher than normal voltage, usually about 14.5v. This high voltage causes the crystals to flake off and fall into the bottom of the battery. So now you have cleaner cell plates but the solution has been diluted by the flakes just falling to the bottom of the battery. So each time you equalize you are actually diluting the acid solution inside your battery, thus not allowing the battery to ever reach its full potential.

But does it really work?

After I figured out what I was doing I managed to keep some petty good reading on what was happening. I made a chart showing the specific gravity reading after each cycle of the BLS cycle and the charger cycle. The results can be seen below.

Order of Test	Voltage @ end of cycle	CCA @ 70 Degrees F	Hours on Charger	Hours on BLS	Cell #	Specific Gravity @ 70 Degrees C	% of Discharge
Start	12.5	430					20
BLS Cycle	12.5			19	1	1.25	20
					2	1.25	
					3	1.25	
					4	1.243	
					5	1.242	
					6	1.238	
2 AMP Charger	13.7		7		1	1.26	14
					2	1.26	
					3	1.26	
					4	1.258	
					5	1.258	
					6	1.238	
BLS Cycle	12.45			18	1	1.258	14
					2	1.258	

					3	1.257	
					4	1.256	
					5	1.248	
					6	1.25	
2 Amp Charger	13.25		12		1	1.27	5
					2	1.267	
					3	1.265	
					4	1.268	
					5	1.26	
					6	1.254	
BLS Cycle	12.7			12.5	1	1.26	
					2	1.26	
					3	1.265	
					4	1.268	
					5	1.26	
					6	1.255	
2 Amp Charger	12.8	823 24 Hrs Later	26		1	1.27	5
					2	1.27	
					3	1.27	
					4	1.27	
					5	1.265	
					6	1.263	

**Observations-**

The first cycle using the BLS did not yield any noticeable differences in the % of discharge.

After the first charge cycle at 2 amps the voltage was reading 13.7 volts. The charger was quite hot. This is part of the normal working of the charger. It is sensing lower state of charge so kicks up the voltage to fully charge the battery. The % of discharge went down from 20 to 14.

After the second cycle using the BLS the voltage dropped to 12.45 volts. This is normal because the BLS is using the power of the battery to run on .

After the second charge at 2 amps the voltage was reading 13.25V. There was still a high demand from the

battery to fully charge the battery. The specific gravity had improved to 1.255-1.268. This is a drastic improvement, the percentage of discharge relative to the chart 5%.

After the third cycle using the BLS the voltage has improved over the previous BLS cycle from 12.45 to 12.7. This would indicate that the BLS is still working since it had started at 13.25V after the charging cycle. The third cycle time was 12.5 hours, about six hours less than the first BLS cycles.

After the third charge cycle at 2 amps the voltage had calmed down to 12.8 volts after 26 hours of charging. This is a normal voltage at 100% charge after the battery has gone into a float mode.

**Final Results-**At the end of the test the volt meter showed 12.8 volts at the end of a 26 hour 2 amp charge cycle. The specific gravity at the end on this charge cycle showed reading from 1.27 to 1.263. After 24 hours the battery was taken to the local NAPA store and was tested using the same test instrument as used before the test was started. The final reading on the NAPA tester was 823 CCA @ 70 degrees F, and 12.82 volts. Relative to the BLS chart the state of charge was 100%, at 1.27 specific gravity.

**Final Conclusion-** the Battery Life Saver device truly works. The results at the end of the test reflect numbers that you would find with a new battery. I can only conclude that the battery plates were sulfated before the test was begun. At the end of the charging/BLS cycles the CCA were fully restored.

Certainly results may vary with the current condition of your batteries. But the results are conclusive that the BLS works. The benefits will be greater on items like golf carts, EV's, solar installation, and any other multiple battery installation. The BLS is available from 12V to 156 volts and is matched to the voltage of the system charger and not the individual voltage of the battery.



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