

# The Battery Life Saver

electronic device

The Most Effective Desulfator available

Patent #7374839

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## [Get the Most From Your Lead-Acid Batteries](#)

We all benefit from using lead-acid batteries. Our cars and golf cars will go nowhere without them. Many niceties of civilization maintained outside electrical grid systems like a refrigerator or TV in our RV would not be possible without batteries. Of course, wind and solar systems depend on battery banks. Those batteries can cost us a pretty penny to replace and most of the time they last way below their supposed life expectancy.

### How do I get the most out of my batteries?

To better understand what to do we will need to answer a couple of questions:

**a. What is a battery?** A battery is a device in which chemical energy is transformed into electrical energy. That energy can be used in a controlled manner.

**b. How does a battery work?** In a normal battery we have three basic elements: one plate made of lead, an electrolyte of sulfuric acid and another plate made of lead oxide. When the battery is discharged, the sulfuric acid in the electrolyte reacts with the lead and lead oxide releasing electricity, forming lead sulfate. This leaves a watery electrolyte solution. When a battery is completely discharged, what is left is lead sulfate and water. When you start recharging the battery, the lead sulfate is broken apart by the electric current. This returns the system to the original elements: lead and lead oxide on the plates and sulfuric acid in the electrolyte, *for the most part*.

We said for the most part because an incomplete recharge is going to leave behind some lead sulfate. The next time you use your battery, the newly formed sulfate is going to attach to the left over sulfates making stronger sulfates. The problem is that a normal battery recharge is not going to be able to break them down completely. You will have more and more sulfates that do not break up. The more sulfates that accumulate, the less effective your battery is at storing and releasing energy.

### What to do?

First make sure you recharge your batteries completely and regularly even if you do not use your vehicle. You can use a good electronic desulfator. It can dissolve the otherwise hard to eliminate sulfates, extending the battery life. After testing many powders and liquids sold to eliminate sulfates, we do not recommend using those substances. Overcharging, also called equalizing is



**Saving the  
Environment &  
Money  
by Making Batteries  
Last!!**

### The Latest

Our new BLS instructional video is completed and ready for viewing. You can use it to inform your customers of how the BLS works. The link is [BLS Video](#)

### Special News

We are celebrating our 2nd year anniversary of receiving the Patent for the BLS! To our Dealers, a special Thank You for your continued feedback and support.

another action that is not recommended. It will end up killing your batteries in the long run despite any apparent immediate improvements.

As we mentioned earlier there are chemical reactions happening while charging and discharging batteries. Heat accelerates those reactions causing a battery to discharge faster. It is important to protect your batteries as much as possible from high temperatures. It is better to store batteries in a cool place. Park your cars in the shade and avoid as much as possible the direct sun.

If heat can dramatically reduce the battery life, ice can destroy it completely. Do not ignore icy weather. If you are going to leave your car or golf car for months in a place that can be hit by extensive freezing temperatures or you expect a freeze, make sure to fully charge your batteries before the freezing temperatures start. If you are going to leave for months at the time a trickle charger is very useful to maintain batteries in a good condition. The risk of a discharged battery hit by freezing temperatures is that the water formed by the discharge of the battery when frozen can crack the battery, destroying it. Talking about water, if your batteries are the unsealed types make sure to regularly water them.

The worst enemy of your batteries is neglect. Batteries well cared for last two times longer than neglected ones.

**Don'ts:**

- Do not equalize and/or overcharge your batteries.
- Do not store your batteries in hot places or under direct sun exposure.
- Do not use solid or liquid additives in your batteries.
- Do not neglect to water and only use distilled water. Any other water contains minerals that are bad for your battery.
- Do not neglect to charge regularly.
- Do not expose directly your batteries to very low temperatures to prevent any risk of cracking.

**Do's:**

- Regularly charge your batteries. Let them get fully charged before disconnecting the charger.
- Use a good electronic desulfator that will help to eliminate hard sulfates from the plates.
- Store cars and batteries in cool places or at least away from direct sun exposure.
- Water batteries regularly if they are the unsealed type using distilled water.
- Protect batteries from being directly exposed to extreme cold weather.

These simple rules will help you to get the most out of your batteries.