

# ReNew-IT Pulse Technology®

**PulseTech**  
Products Corporation  
The World Leader In Battery  
Performance Technology

## A Technological Leap

Forget everything you've ever learned about battery charging and maintenance, because the old way is no longer the only way. Before, batteries controlled you. You installed one, used it, then, in most cases, it had to be replaced long before it should have been. And there was nothing you could do about it. Well, now there is.

In every industry and aspect of life technology is advancing by leaps and bounds. Now, the time has come for a technological leap of that magnitude in the battery industry. For the first time since the lead-acid battery was invented over 100 years ago a change has occurred that will affect the industry for the next 100 years: Our revolutionary **ReNew-IT Pulse Technology®**.

PulseTech offers several revolutionary battery charging and maintenance systems that use our technology. They let *you* control the battery — not the other way around.

## Why Your Batteries Die

The plates are the heart of your battery. Basically, your battery is able to store and supply energy because of an interaction between the plates and the battery acid. In theory, batteries should last years, but they usually don't. Why? Because of a series of problems caused by *sulfation buildup*.

As your battery gets older — or sits unused for long periods of time — lead sulfates on the battery plates enlarge and *build up* to the point where they create a physical barrier. Before long, the buildup can become so dense your battery will no longer accept or release energy.

How big a problem is sulfation buildup?

Consider this: The main cause of vehicle failure is battery failure. The main cause of battery failure is sulfation buildup. It's the main reason why batteries die.

This is especially true for infrequently-used and stored vehicles, but it's also a major problem for frequently-used vehicles.

The funny thing is, in most cases your

battery is still good. You just can't reach the energy inside. That means you have to buy another battery even though the one you have may still be usable.

PulseTech products help prevent this problem — once and for all.

## How We Make Your Batteries Stronger

It's simple. Our products connect directly to the battery terminals and emit a pulsing dc current into the battery. Using a unique Ion-Transfer process, these pulses remove the sulfate deposits from the plates and convert them to active electrolyte. When installed permanently, our products also help keep sulfates from building up again so your batteries will stay strong all the time.

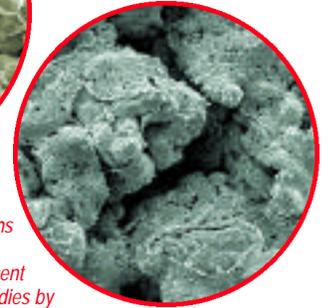
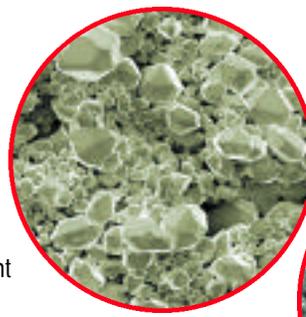
In some cases, some of our products can even help renew dead batteries already suffering from sulfation buildup and help bring them back to life.

## Get True Battery Power

Our technology works with all conventional flooded lead-acid batteries and sealed "maintenance-free" batteries, including Valve Regulated Lead-Acid (VRLA), Absorbed Glass Mat (AGM) and gel cell. By helping keep the plates "clean", batteries work harder than you ever thought possible and last up to three times longer. They also maintain greater reserve capacity so your battery will recharge faster and release more of its stored energy. With more *available* energy your vehicles last longer between recharges and your electronic accessories work better. You get the *true* power of your batteries.

Some of our patented products also help prevent the normal loss of battery power on stored vehicles and equipment no matter how long they sit unused — even months at a time.

They even help protect the environment. Since batteries last longer, the danger of contamination caused by lead and sulfuric acid leaking from prematurely discarded



*Microphotographs of battery plates taken during recent independent studies by researchers at two major universities. (Top) A battery plate covered in heavy sulfation buildup which reduces the battery's ability to accept and release energy. (Bottom) ReNew-IT Pulse Technology® helps remove this buildup which exposes the active material on the battery plates. As a result, batteries are stronger so they work harder and last much longer.*

batteries is reduced.

What makes our ReNew-IT Pulse Technology so unique and so effective is the distinct "pulse waveform" that defines it. This waveform has a strictly controlled rise time, pulse width, frequency, and amplitude of current and voltage pulse. No other battery charging or maintenance system has this specific waveform. That means no other system can provide the same exceptional benefits as PulseTech products.

## Military Proven

The U.S. Military began using the commercial Solargizer system almost ten years ago. Today there are PulseTech products on combat and tactical vehicles all over the world. In fact, our products recently helped the U.S. Army save millions of dollars in battery purchases over a two-year period.

If our technology can do that for heavy-duty military vehicles, imagine what it can do for you.

To find out which system is best for you, see a PulseTech dealer. For the dealer nearest you, call **1-800-580-7554** today. Or visit [www.pulsetech.net](http://www.pulsetech.net).

## How ReNew-IT Pulse Technology® Works:

### Figure A:

*Sulfation buildup occurs as lead sulfates form on the battery plates during the normal charge/discharge cycles. During this process, some of the sulfates enlarge to the point where they can no longer accept energy so they stay on the plate. Over time these sulfates can build up to the point where efficiency is reduced and the battery finally dies.*

### Figure B:

*Using a unique Ion-Transfer process, ReNew-IT Pulse Technology helps prevent sulfation buildup by sending a pulsating dc current into the battery. This current also helps remove existing sulfate deposits from the plates and enables these deposits to return to the battery acid as active electrolyte.*

### Figure C:

*With the plates "clean" your battery will work harder and last longer than you ever thought possible.*

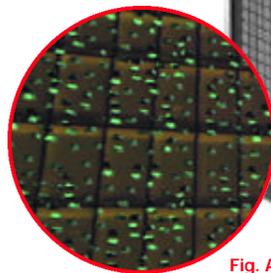
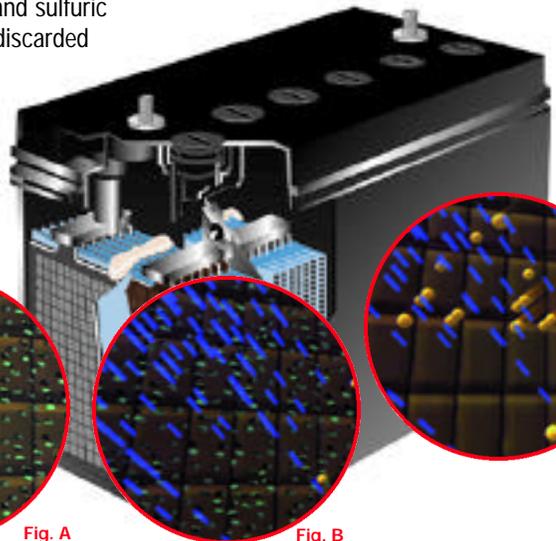


Fig. A

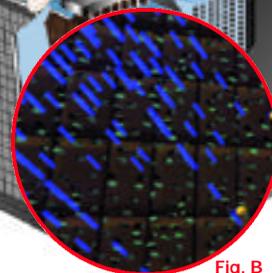


Fig. B

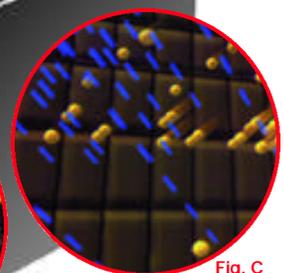


Fig. C