

INDUSTRY SPOTLIGHT

Material Handling

Get Maximum Run Time ALL The Time! No matter what type of industrial equipment you use (forklifts, pallet jacks, scrubbers, burnishers, scissor lifts, etc.) you need the **PowerPulse® Battery Maintenance System** from PulseTech. PowerPulse helps improve equipment productivity by maximizing your battery power and reliability while reducing your downtime and maintenance.

Industrial batteries are charged all the time and they cost thousands of dollars each. But, if they don't use **ReNew-IT Pulse Technology®** these BIG batteries will sulfate in time. Older batteries meant to last an eight-hour shift will only go three hours.

Now, imagine if each battery could last up to three times longer and perform better every day. That's what PowerPulse helps them do. Plus, sulfate-free plates also means it takes less electricity to recharge the battery.



TESTIMONIAL

"About five years ago I purchased a used '87 Toyota pickup with the original battery. At the time I installed an Industrial 12-Volt Solargizer. I just now replaced the battery...If it weren't for the Solargizer, the battery would have been consigned to the graveyard long ago."

Tom Kirby
Fair Haven, Michigan

SUCCESS STORY

PowerPulse Ensures CSXT Locomotive Performance

If you think having the battery die in your car or truck is inconvenient, imagine having your batteries die while operating a 210-ton locomotive. For one thing, locomotive batteries weigh about 1300 pounds. With a battery that heavy, putting in a new one is a difficult task to say the least. Add the fact that a set of these locomotive batteries costs about \$2800 and you have a time-consuming, expensive situation that railroads want to avoid at any cost.

This is why CSX Transportation in Jacksonville, Florida, one of the largest railroads in the country, uses the PowerPulse battery maintenance system on all of their locomotives. PowerPulse is designed to ensure peak battery performance so batteries won't die.

PROBLEM: Weak batteries were creating starter problems on locomotives owned and operated by CSXT. The starter system on each engine requires a tremendous amount of amperage to kick it over. But, the batteries weren't capable of handling the demand so they died and had to either be recharged or even replaced.

When a set of locomotive batteries dies it almost always happens in a remote area that is very difficult to reach. Replacing the \$2800 batteries involves using a forklift which means another locomotive has to push the first locomotive to the nearest maintenance yard. This is an extremely expensive procedure because it ties up two locomotives (a capital investment of \$2.5 million each).

SOLUTION: CSXT installed PowerPulse on ten locomotives to determine if the products would solve the company's battery problems. The locomotives use two 36-Volt PowerPulse units (735X036) on each set of batteries.



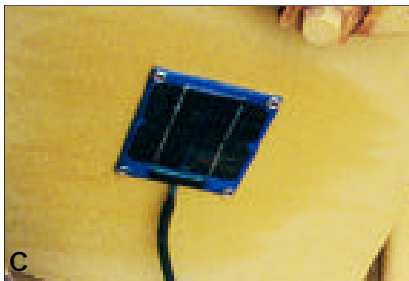
(Top) CSXT installed two 36-Volt PowerPulse units (bottom) on their locomotives to improve battery charge acceptance and overall performance on the 72-volt battery systems.

RESULTS: Six months after the installation, all of the batteries using a PowerPulse had improved. Not only was the specific gravity up, but they were also easier to charge. This convinced CSXT to begin installing the units on every locomotive in its fleet.

Battery maintenance will become even more of an issue for railroads in the near future. Locomotives are now being developed that use ac power rather than dc like engines do today. These new ac systems will demand even more power from their batteries for a variety of reasons, including the fact that they are all computer-controlled. PowerPulse can help batteries meet those demands.

LEARN MORE: See your local PulseTech dealer to see how our products can help increase your battery reliability. For a dealer near you, call 1-800-580-7554. Or visit www.pulsetech.net.

SAMPLE INSTALLS



Installing PulseTech products is easy and well worth the time. Shown above are examples of actual customer installations:

- A. An Industrial 12-Volt Solargizer (735X130) solar panel mounted by the windshield of a taxi cab.
- B. Three 48-Volt PowerPulse (735X048) units (two not shown) installed on a home generation electric system.
- C. The circuit box of a 24-Volt Solargizer (735X150) mounted by the batteries of a large grader.
- D. The solar panel of an Industrial 12-Volt Solargizer (735X130) on the fender of an ATV.

TECHTALK FAQ

Presenting a series of frequently-asked questions regarding the benefits of PulseTech products and how they can help your customers:

What makes PulseTech products different from other battery chargers and maintenance systems on the market?

RediPulse®, PowerPulse®, Solargizer® and other battery maintenance systems from PulseTech are the only products in the world that utilize our patented *ReNew-IT Pulse Technology™*. And this technology has been scientifically proven (see below for more) to be the most effective method of preventing the main cause of battery problems and failure — *sulfation buildup*.

Some products may claim to provide the same benefits as ours, but most of them merely try to “maintain” the battery by charging them on a constant basis. The problem is too much charging will ultimately overheat and damage the lead plates. In other words, the “cure” could be worse than the disease.

Other products even claim to remove lead sulfate deposits from the plates. But, this too is usually done by over charging the plates in order to literally knock the sulfates loose. In this situation, only a few sulfates are removed as active plate material sheds and falls useless to the bottom of the battery. It’s sort of like blowing up the house just to get rid of the termites.

On the other hand, PulseTech products enable the embedded sulfates to leave the

plates and converts them to active electrolyte. They also help prevent them from building up again and won’t harm the battery in any way.

What are the benefits of using ReNew-IT Pulse Technology?

The main benefit of our technology is to ensure battery performance so you can rely on your battery any time you need it. As we said above, by cleaning the battery plates ReNew-IT Pulse Technology provides the following benefits:

- Stops the main cause of battery problems and failure: *sulfation buildup*
- Prevents dead batteries and helps your batteries work harder than ever
- Batteries last up to 3X longer
- Batteries charge deeper and maintain greater reserve capacity so they last longer between recharges and provide more *available* power
- Prevents the loss of battery power on vehicles no matter how long they sit unused — even months at a time
- Renews dead, sulfated batteries and helps bring them back to life
- Helps protect the environment by reducing the number of discarded batteries
- Works with all lead-acid batteries including sealed, gel cell and AGM. 🇺🇸

Scientifically-Proven Technology

Independent studies by researchers at Oakland University and Ohio State University recently confirmed that ReNew-IT Pulse Technology increases battery efficiency and battery life dramatically. These two-year studies showed that our technology allowed a more even distribution of lead-sulfate crystals over the surface area of the battery plates. It also revealed a significant reduction in the size of crystals. These changes greatly improve a battery’s ability to store and provide energy.

Our technology also prevents sulfate-induced corrosion that is the primary cause of shedding of active material on the plates. As a result, the life span of the battery is increased dramatically.



(Left) A battery plate covered in heavy sulfation buildup which reduces the battery’s ability to accept, store and release energy. (Right) ReNew-IT Pulse Technology™ cleans these lead-sulfate deposits off the plates and converts them to active electrolyte. This process exposes the active material on the battery plates which means batteries are stronger so you get up to three times longer life and maximum performance.



Visit this local
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dealer today:

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Products Corporation