

INDUSTRY SPOTLIGHT

Agriculture Equipment

Battery reliability is vital in the farming industry because equipment has to start or productivity comes to a standstill. That's why farms across the country are now using PulseTech systems to make sure batteries work when needed.

Agricultural equipment is either used constantly or sits for extended periods. When it sits, lead-sulfation buildup will occur faster than when it is used all the time. This buildup is the main cause of battery problems and failure.

To prevent this time-consuming and expensive problem, use our *ReNew-IT Pulse Technology*® products like the Industrial 12-Volt (735X130) and 24-Volt (735X200) Solargizers, and the 12-Volt (735X012) and 24-Volt (735X024) PowerPulse system.



TESTIMONIAL

"The folks at PulseTech don't use the word 'forever' when they describe how long a lead-acid battery will last when connected to their 'Solargizer'...But tests have shown that the Solargizer will prevent the loss of battery power on stationary vehicles and equipment no matter how long they sit unused."

John G. Roos
Editor, *Armed Forces Journal International*

SUCCESS STORY

Solargizer Extends GSE Battery Life Seven Years

Maintaining stored or infrequently used vehicles or equipment is time consuming and expensive. Imagine having a group of ground support equipment in your fleet that requires having the battery replaced every year due to inactivity. Frank Hogan, Automotive Maintenance Superintendent at Dallas/Fort Worth International Airport, has faced this continuing problem for over 20 years. But not anymore. Not since he started using Solargizer® and PowerPulse® systems over ten years ago.

PROBLEM: It rarely snows in Dallas, Texas, but when it does it can bring airport traffic to a standstill. The problem is, the snow blowers needed to clear the runways sit in storage for months at a time, so the batteries gradually lose power. This means they have to be recharged or replaced before they can be used. On average, the batteries on the D/FW snow blowers had to be replaced every fall. The airport also has a fleet of 14 infrequently-used sanding trucks that suffered from battery failure on a regular basis.

SOLUTION: In 1992, Frank installed the Industrial 12-Volt Solargizer (735X130) on a snow blower with an 8D battery. He then stored it for eight months. Frank didn't expect any changes in the battery because every battery maintenance product used at D/FW Airport prior to Solargizer had failed. He also mounted Solargizer on all of the sanding trucks, then parked them under an open shed for ten months.

RESULTS: "To our amazement, the snow blower started instantly after sitting for eight months," states Frank. "In fact, under the load/no-load test, the battery was actually even better after it sat all those months." Solargizer worked so well on the

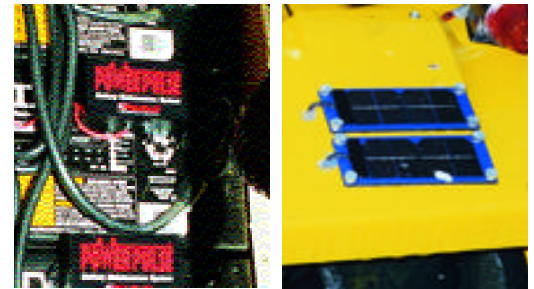


Photo: (Top) D/FW Airport operates and stores several pieces of ground support equipment that use PulseTech products to keep lead-acid batteries in peak condition no matter how long they sit unused. (Bottom left) 12-Volt PowerPulse units on a snow blower. (Bottom right) Two 12-Volt Solargizer solar panels mounted on the roof of a maintenance truck.

battery that it lasted for seven years before it had to be replaced due to normal wear and tear. That's six years longer than before. All the sanding trucks started, too, even after sitting for ten months. Plus, each of the batteries actually improved during that period. "Solargizer has done exactly what the manufacturer claims and has solved a huge problem for us," declares Frank. "They paid for themselves in less than a year in just battery costs alone."

Today, D/FW is using the Solargizer and the PowerPulse systems on several types of ground support equipment. Only time will tell how long the batteries will last on them.

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 on a service truck used by a national battery store.
- B. A 12-Volt Power unit (735X012) mounted by the battery of an ambulance.
- C. A waste management truck with an Industrial 12-Volt Solargizer (735X130) solar panel on the front bumper.
- D. A bank of back up batteries with a 48-Volt PowerPulse (735X048) unit.

TECHTALK FAQ

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

Are the RediPulse®, PowerPulse® and Solargizer® systems chargers?

Besides preventing lead-sulfate buildup on battery plates, the RediPulse and Solargizer models also produce a trickle charge as well. They provide enough power to offset the normal daily discharge of a battery (usually 3.1mA to 10.1mA depending on the battery chemistry), plus a nominal amount of parasitic drain. This was recently verified independently by one of the major U.S. auto manufacturers.

Keep in mind, though, that while they do supply a pulsing trickle charge to the battery, the charge rate is not sufficient to charge a completely dead battery in a short period of time. PowerPulse is a battery *maintenance* system designed to prevent sulfation buildup only. It will not charge.

Also, use of these ReNew-IT Pulse Technology products will enable chargers to do their work more efficiently. Since they help keep the battery plates free of sulfate deposits, it takes less time to charge the battery and battery capacity is increased. It also has greater discharge capabilities so it will last longer between charges.

Is it true that charging batteries in reverse polarity will desulfate the

plates?

Absolutely not. reversing the polarity will actually damage your battery and could even lead to an explosion. Polarity in a battery should NEVER be reversed for any reason.

For safe, effective prevention and removal of sulfation buildup on battery plates, use only our ReNew-IT Pulse Technology products. They improve battery performance and will not harm the battery in any way.

Do the RediPulse, PowerPulse and Solargizer models have to stay on the same battery permanently or can you move them from battery to battery?

These units can be moved from battery to battery if the customer chooses to do so, but we strongly suggest you use them on the same battery or batteries all the time. Remember that sulfation buildup occurs 24-hours a day from the first moment acid is loaded into the battery. Although you can use ReNew-IT Pulse Technology as a part-time fix, a continuous installation will give a much more effective result because not only do they eliminate the existing buildup, they also prevent the lead sulfates from building up again. 🛑

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.



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