APulsefalk

Published Bi-Weekly by PulseTech Products Corporation, The World Leader In Battery Performance Technology • September 3, 2002

PRODUCT SPOTLIGHT

24-Volt Solargizer® Battery Maintenance System

Solar-powered battery maintenance. The 24-Volt Solargizer ensures (735X150) battery performance on larger applications with systems up to 24 volts. It's ideal for construction equipment, farm implements, recreational

tor trailers and more. This system is also



available in a 24-Volt Receptacle (735X220) model that includes a solar panel for use outdoors and a specially-designed 110-volt ac adapter for storage inside or in areas without access to direct sunlight.

Each unit is supplied with 3/8" lug attachments and 25 feet of wire between solar panel and circuit box for installation flexibility. A special mounting kit is also included. Ten-year limited warranty.



TESTIMONIAL

"Last night I returned to San Francisco from 10-week trip to London. After putting down my bags in the house I went to the driveway and my car started just as if I had driven it the day before! I made a number of short trips around the city doing errands and the battery was very strong...The (Industrial 12-Volt) Solargizer is just perfect. "

Robert Gaskins Campbell, California

Problem Batteries On Scrubbers Now Last Full Shifts With PowerPulse

Xencom Facility Management in Plano, Texas provides cleaning services to over 30 major shopping malls across the country. Equipment reliability is vital to the company, and thanks to the patented PowerPulse Battery Maintenance System the batteries on their equipment now last full shifts all the time.

EQUIPMENT: The company uses industrial rider scrubbers and walk-behind burnishers to clean and polish floors. Each is powered by six large 6-volt batteries that cost about \$120 each.

PROBLEM: The scrubbers and burnishers have to be used at night while the malls are closed. At one large mall in North Texas it takes over three hours to polish all the floors. Unfortunately, the batteries in the equipment were only lasting less than two hours because lead-sulfate deposits on the battery plates were preventing them from accepting a full charge. As a result, the equipment had to be taken out of service and recharged each night before the polishing could be completed.

SOLUTION: Xencom installed a 36-Volt PowerPulse (735X036) unit on the scrubbers and burnishers to remove the sulfate deposits from the battery plates. It also works 24-hours a day to prevent future buildup while it is installed.

RESULTS: Within approximately ten working days the run time on the scrubbers increased beyond three hours which meant the equipment could complete its task in one clean sweep *without*

SUCCESS STORY







(Top) One of the industrial scrubber/dryers used by Xencom. (Middle) 36-Volt PowerPulse installed on the set of six 6-volt scrubber batteries. (Bottom) Using PowerPulse, run time on this floor burnisher went from three hours to over eight hours.

having to recharge. After just two weeks the burnishers were running from 11 p.m. to 7 a.m. — that's eight full hours and still had power to spare.

LEARN MORE: To see how PulseTech can help increase battery performance see your local PulseTech dealer. For a dealer near you call **1-800-580-7554**, or go to **www.pulsetech.net**.

PulseTalk

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) on a grader that sits unused for weeks at a time.
- B. A 24-Volt PowerPulse (735X024) on a pallet jack used by a major beverage company.
- C. The solar panel of a 24-Volt Solargizer (735X150) mounted on a large generator.
- D. A sailboat using a 5-Watt Solargizer Solar Charger (735X605) to charge the batteries while it sits unused.

www.pulsetech.net or e-mail us at ppcmarketing@pulsetech.net.

TECHTALK FAQ

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

Will ReNew-IT Pulse Technology[®] work with any type of lead-acid battery?

Yes. They work on any size and any voltage lead-acid battery. This includes all conventional flooded lead-acid batteries and sealed "maintenance-free" batteries, including VRLA, absorbed glass mat (AGM) and even gel cell. Plus, we offer over 60 battery charging and maintenance products, so we have a system that can help you ensure battery performance no matter what type of vehicle or equipment you use.

What is a pulse waveform?

Our ReNew-IT Pulse Technology is defined by a distinct "pulse waveform" that has a strictly controlled rise time, pulse width, frequency, and amplitude of current and voltage pulse. It's the patented combination of the above that makes our products so effective.

Will weather affect my battery?

Yes. What many people don't realize is that extreme cases of heat and cold will increase the speed of sulfation buildup within a battery. For example, when the weather starts to get hotter, the rate of sulfation buildup will actually double for every 10-degree increase in temperature. That means that if the temperature goes from

75° to 95°, sulfation buildup will occur 300% faster than normal.

When it's cold outside, sulfation buildup will rob operational power because the vehicle's fluids will thicken. This means it will take even more power to start the vehicle, so the battery has to supplement this power and the result is a faster buildup of sulfates on the lead plates.

Installing one of our battery charging or maintenance systems will help avoid the destructive effects of the weather because they will prevent lead sulfates from forming, no matter how hot or cold it gets.

Also, keep in mind that the battery's electrolyte can actually freeze if the battery is in an advanced state of discharge, and this could damage the lead plates. At 1.270 specific gravity (100% charged) battery acid will freeze at -83°F, at 1.200 it will freeze at -17°F and at 1.140 (completely discharged) it will freeze at only 8°F. This just proves that it is even more important if you live in areas of extreme cold to install a PulseTech system on a vehicle that will be sitting unused for an extended period.

Our products will prevent the normal loss of battery power no matter how long the vehicle sits, and it will condition the battery so it is more capable of handling extreme cases of weather.

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 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 your batteries are stronger and you get up to three times longer life and maximum performance.



For More Information: To learn more about PulseTech battery-related products and how they can help increase your sales, or to order products, just call 1-800-580-7554, ext. 154. You can also go to roducts Corporation

9/3/02

