

Published Bi-Weekly by PulseTech Products Corporation, The World Leader In Battery Performance Technology • September 17, 2002

PRODUCT SPOTLIGHT

PowerPulse 12 Battery Maintenance System[®]

For Frequently-Charged 12-Volt Vehicles and Equipment! The 12-Volt PowerPulse uses our *ReNew-IT Pulse Technology*[®] to reduce battery downtime and increase battery life up to three times longer.

This unique, patented unit is a *performance* system that



works automatically 24-hours a day. It prevents and removes sulfation buildup on battery plates which enables the batteries to accept, store and release a maximum charge.

This PowerPulse system works best with single 12-volt batteries, but it can also be used on two or three 12-volt batteries connected in parallel. It's ideal for cars, commercial trucks, emergency vehicles and much more.

Five-year limited warranty.



TESTIMONIAL

"Although the (Industrial 12-Volt) Solargizer is touted as a battery maintenance system, not a charger, I haven't had to charge the assisted battery in four months... Seldom does a product exceed my expectations, but PulseTech's Solargizer has proved that it's definitely well worth the investment."

> Alan Jones Technical Editor Boating Magazine

Concrete Company Keeps Batteries "Factory-Fresh" With PulseTech

Lattimore Materials Company, based in McKinney, Texas, operates 500 hauling and concrete trucks. With that many trucks, battery problems used to be constant. Then, DeLynn James, fleet maintenance manager, set up a total battery management program using Pulsetech battery charging and maintenance systems. Now batteries are lasting longer and working harder than ever before.

PROBLEM: When DeLynn James first joined LMC, he discovered that a high percentage of the bad batteries they had were still within the warranty period. Not only did the direct battery costs concern DeLynn, but also the related battery costs such as labor, downtime, starter replacement and alternator wear.

SOLUTION: DeLynn attacked the problem in three steps:

Step 1 — Determined to recharge and recycle the batteries, he used a Digital Analyzer 475 (741X475) to test the batteries and a Pulse Recovery System[®] Power Base (740X360) and Add-On Module (740X420) to *desulfate* them.

Step 2 — DeLynn always maintains 36 batteries in storage for immediate use. He installed twelve RediPulse[®] 6-12 Charge/Maintenance Systems (735X260) to continue desulfating and trickle charging the batteries on the top row. Then, he rotates the batteries as they are used.

Step 3 — Next, the company installed 5-Watt Solargizer[®] Solar Chargers (735X605) on the concrete trucks and 12-Volt PowerPulse[®] units (735X012) on the hauling trucks and one loader to keep the batteries fresh while in use.

SUCCESS STORY



(Top) One of 500 concrete trucks used by LMC. (Bottom) The solar panel of a 5-Watt Solargizer Solar Charger mounted on the roof of the cab.

RESULTS: All the batteries in stock improved dramatically after they were charged, and/or conditioned by the PulseTech products. When the older batteries were taken off the PRS units, they tested even better than new batteries! The new batteries coming off the shelves after being maintained by the RediPulse 6-12 system also gave better readings than before. The batteries on the trucks tested better, as well, after using the PowerPulse and 5-Watt units. In all, not only was battery life extended, but labor, truck downtime, alternator wear and starter replacement costs were less. Plus, the percentage of bad batteries in the warranty period went from 28% to zero!

LEARN MORE: To see how PulseTech can help you, visit your 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. A 5-Watt Solargizer Solar Charger panel mounted on the trunk of a police cruiser.
- **B.** Two 12-Volt PowerPulse units on a set of batteries in parallel on a delivery truck.
- A. Industrial 12-Volt Solargizers maintaining two 4D 12-volt batteries on a work boat at a major marina.

reserved. 9/17/02

©2002 PulseTech Products Corporation. All rights

D. One of three 12-Volt PowerPulse units (735X012) mounted by the batteries of a large recreational vehicle. TECHTALK FAQ

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

Which product should I use when storing my vehicles for long periods of time?

We suggest you use RediPulse if stored indoors with access to ac power or Solargizer if stored outdoors. Besides preventing sulfation buildup, they also prevent the normal loss of battery power no matter how long your vehicle or equipment sits unused — *even months at a time*.

For example, under normal conditions a battery will lose 1% of its energy a day while the vehicle sits unused (usually 3.1mA to 10.1mA depending on the battery chemistry). That means it will not take long for a battery to become completely discharged, especially if it was not fully charged in the first place. RediPulse and Solargizer will actually replace that 1% of energy every day. This will offset the normal energy loss and the level of power in the battery will remain the same.

If you do not have access to ac power or sunlight, you can use PowerPulse. Keep in mind that PowerPulse was designed more for vehicles and equipment that are used frequently or charged on a regular basis vs. those that are stored. Yet, based on lab testing, a 12-Volt PowerPulse will maintain a 12-volt battery for approximately 2 to 3 months off a full charge if left unattended. We're not saying the vehicle will always start at that point, but the battery will be free of sulfation buildup, will be able to be jump-started into action, and it will recharge and hold a charge like a new battery.

Do the RediPulse[®], PowerPulse[®] and Solargizer[®] units charge batteries?

RediPulse and Solargizer models produce a trickle charge along with the desulfation process. It provides enough power to offset the normal daily discharge of a battery (see first question) plus a nominal amount of parasitic drain. 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 time frame. 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 so it has greater discharge capabilities and it will last longer between charges.

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 (Left) A battery plate covered the battery's ability to accept

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

