

PulseTalk

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INDUSTRY SPOTLIGHT

Golf & Electric Vehicles

PulseTech products help golf cars and other electric-powered vehicles run longer. Want to play an extra 18 holes? You can't with badly sulfated batteries. That's why you need PowerPulse, RediPulse and Solargizer. Available in 36- and 48-volt systems, these units help prevent the buildup of lead-sulfates on battery plates.



No matter what type of electric vehicle you use, you need Pulsetech. By keeping the plates clean, batteries can accept and release a full charge. This means your golf cars have the power they need to run longer between recharges.

Plus, clean batteries also charge faster. In some cases, recharge time can be cut 30-50%. That means PulseTech products can pay for themselves with the money saved in charging costs alone!



TESTIMONIAL

"Solargizer test results were very exciting. During the entire 16-month period, (the Canadian military) haven't had to replace a single battery, despite leaving the electrical system on when parking test vehicles over the weekend."

John Sims
Mil Com Technical Services

SUCCESS STORY

RediPulse Keeps Stored Vintage Car Batteries In Peak Condition

Jack Callahan is just one of thousands of people around the world who love to collect vintage automobiles and other vehicles. He's been collecting for five years and currently stores ten cars in a warehouse in Southlake, Texas just outside of Dallas.

He's also used to suffer from major battery problems over the years. But that stopped when he began using the RediPulse 6-12 Charge/Maintenance System from Pulsetech.

Problem: Since his cars sit unused in storage most of the time, the batteries were suffering from severe sulfation buildup. As a result, they would die after only one month. That meant he had to either recharge or replace them on a regular basis. The ten lead-acid batteries he uses are customized for these collector vehicles, so they are very expensive. The last thing he wanted to do is have to replace them every month.

Solution: Jack installed one RediPulse 6-12 Charge/Maintenance System (735X260) on each car. This system works on all lead-acid batteries up to 12 volts and is designed to prevent the normal loss of battery power on stored vehicles and equipment no matter how long they sit unused. It also keeps the battery plates clean of lead sulfate deposits so the battery will provide maximum performance and reliability.

Result: Since installing the RediPulse units, Jack's cars start every time and he has never had a problem with dead or weak batteries. In fact, he left town for over three months one summer, and when he came



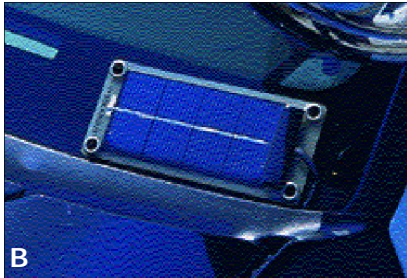
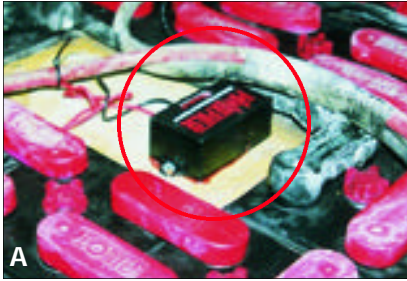
(Top) Jack Callahan standing between a 1962 Chevrolet Impala and a 1957 Chevrolet Bellaire Convertible, two of the ten collector cars he has stored in a warehouse outside of Dallas, Texas. (Bottom) The RediPulse 6-12 Charge/Maintenance System installed on the Impala. RediPulse helps keep the batteries on all his cars in maximum condition so the cars start when he needs them no matter how long they sit in storage.

back every single car started with no problems at all.

"The RediPulse system is a lifesaver," says Jack, "I was so tired of jumping into one of my cars, turning the key and finding that the battery was dead. That doesn't happen anymore though. Now my cars start every time I need them and the batteries are stronger than ever. No matter how many cars I collect, I'll make sure they each have a RediPulse unit installed."

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. A 36-volt PowerPulse system (735X036) installed on a forklift.
- B. The Industrial 12-Volt Solargizer (735X130) installed on a police cruiser.
- C. A Pulse Charger/World Version (746X725) recovering dead batteries in the maintenance facility of a large city.
- D. An electric highway message board using an Industrial 12-Volt Solargizer (735X130) to maintain the batteries.

TECHTALK FAQ

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

Is it possible to recover a dead battery that will no longer accept a charge?

Yes. Although our products are designed for keeping good, new batteries in peak condition for a longer period of time, some of them can, in most cases, be used to bring batteries that will not accept and hold a charge back to useful condition.

Here's what you do: Use a PulseTech 475 (741X475) or PT510 Digital Battery Analyzer (741X510) to determine if the battery is a good candidate for recovery (Note: Even though the analyzer may read "REPLACE BATTERY," it could still be recoverable.)

The ideal way to recover a battery is to use our Pulse Charger®/World Version (746X725). Make sure the cells are filled with distilled water and attach the battery to the Pulse Charger. Set the Pulse Charger in the *Pulse & Charge* mode and watch the charger for 20 minutes. If the *Charge Complete* light begins to flash, it is indicating a problem and the battery is probably not recoverable. If the light does not flash, you can proceed.

Put the Pulse Charger on *Pulse Only* mode and pulse the battery for at least 24 hours; then switch to *Pulse & Charge*. The battery should be fully charged within 14 hours. At that point, the Pulse Charger will

shut off automatically so it won't over-charge. Although it is no longer charging, it will continue to pulse the battery.

You can also use the RediPulse Pro-10® (746X900) and the Pulse Recovery System® (746X650) to recover more than one battery at a time. In the case of the Pro-10, the battery must have at least a charge level of at least 11 volts.

Use the 475 or PT510 analyzer as described above, then attach the battery to a PRS module and pulse for 24 hours. Next, use one of the analyzers to check the battery for improvement. If there has been at least a 20% increase in Cold Cranking Amps (CCA), you may proceed.

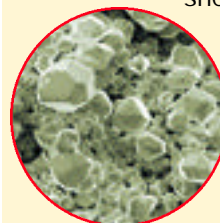
Next, attach the battery to the Pulse Charger on *Pulse & Charge* mode and charge it until the charge cycle is complete. If you do not have a Pulse Charger, use a standard charger and attach it to the battery while the battery is still attached to the PRS unit. This way the battery will be charged and pulsed at the same time. Charge the battery for about four hours, then check for improvement.

Keep in mind that some very badly sulfated battery plates could take several days to clean. Also, not all batteries can be totally recovered. If a battery has a short circuit or physical damage, it is impossible to bring back. 🚫

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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dealer today:

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