



Installation Manual

As of 9/4/03

PowerPulse is NOT a battery charger. It is a proven electronic performance device that uses a patented [ReNew-IT Pulse Technology](#) to prevent the main cause of battery problems and failure: *sulfation buildup on the battery plates*. By conditioning the plates, PowerPulse helps all your lead-acid batteries work harder and last longer than ever before.

It prevents dead batteries, extends battery life dramatically and maintains peak battery efficiency. It also increases charge acceptance so batteries recharge faster and with better quality.

Installing PowerPulse is very easy. All you have to do is follow the simple instructions inside. Once installed, it works automatically to ensure peak battery performance and reliability.

INSTALL ILLUSTRATIONS: Throughout these instructions there are links to illustrations showing how each Solargizer model should be installed. If you are going to print out these instructions for future use, make sure you print the illustrations as well.

WARNING:

Because of the possibility of personal injury, always use extreme caution when working with batteries.

Battery Precautions

ALWAYS use the following precautions when working around batteries:

- Shield eyes. Explosive gasses can cause blindness or injury.
- No sparks, flames or smoking.
- Sulfuric acid can cause blindness or severe burns.

Installation Instructions

A. Mount The Circuit Box

1. For 12-volt batteries we suggest you mount the circuit box near the battery and not on the battery itself. However, on large motive batteries for forklifts, pallet jacks, etc., mounting the unit on the battery is fine. Make sure it is situated in a location where it is protected and will not accidentally be disturbed by mechanics, etc. The circuit box can be mounted in one of two ways:

1st Method: For a semi-permanent installation, use two round head screws* to attach the circuit box to the surface of the vehicle or equipment in an area away from moving engine parts.

2nd Method: Apply an industrial adhesive* to the back of the circuit box and glue it to the surface of the vehicle or equipment.

2. Once the circuit box has been mounted, use plastic cable ties* to secure the wires to a cable or other secure area near the battery. This will keep the wires from tangling with moving engine parts.

For examples of PowerPulse installations, go to our [Installations](#) section.

*Not included.

B. Connect Lugs To Battery Terminals

IMPORTANT: The positive (+) PowerPulse wire (red) must be connected to the positive (+) battery terminal and the negative (-) PowerPulse wire (black) to the negative (-) battery terminal in order for PowerPulse to work.

12-Volt PowerPulse:

Single 12-volt batteries --

1. Slip the round metal lug at the end of the positive (red) PowerPulse terminal wire onto the bolt securing the battery clamp to the positive terminal until it sits next to the nut tightening the clamp.
2. Slip a star washer* onto the bolt and next to the lug.
3. Screw a hex nut* onto the bolt and tighten it until it secures the lug and washer between it and the clamp nut. This will allow PowerPulse to send a pulsating dc current through the terminal and into the battery which will eliminate the buildup of sulfates on the lead plates. (see Fig. 1.)
4. Repeat steps 1 - 3 for the negative wire.

To see an illustration of a 12-volt PowerPulse installed on a single 12-volt battery, [click here](#).

**Not included.*

Two 6-Volt Batteries In Series --

For two (2) 6-volt batteries connected in series to equal 12-volts, follow steps 1 through 2 above. On step 3 connect the positive wire to the positive terminal on Battery 1 and the negative wire to the negative terminal on Battery 2 (see Fig. 2).

To see an illustration of a 12-volt PowerPulse installed on two 6-volt batteries, [click here](#).

Batteries In Parallel --

PowerPulse 12 can be used with up to three 12-volt batteries in parallel. When installing the unit on two or three batteries, connect the positive wire to the positive terminal on Battery 1 and the negative wire to the negative terminal on the last battery in the set.

24-, 36- and 48-Volt PowerPulses:

For 6- or 12-volt batteries connected in series to equal 24, 36 or 48 volts, use the PowerPulse unit designed for each specific voltage. To install, follow steps 1 through 2 above under the 12-Volt PowerPulse section. On step 3 connect the positive wire to the positive terminal on Battery 1 and the negative wire to the negative terminal on the last battery in the set.

To see an illustration of how 24-, 36- and 48-volt PowerPulse look installed, click on one of the following:

- [24-Volt PowerPulse](#) • [36-Volt PowerPulse](#) • [48-Volt PowerPulse](#)

LED

Each PowerPulse unit has an LED on top of the circuit box. The LED will blink when the wires are attached to the battery terminals and the unit is activated). Once the unit is installed, if the LED does not light it may be due to one of the following reasons:

1. The PowerPulse has been installed incorrectly (reversed polarity or a short).
2. There is a bad connection.
3. The battery has a short.

Basic Care and Cleaning

The PowerPulse system is completely weatherproof so normal moisture will not damage it. If the circuit box gets dusty or dirty, simply clean it with a damp cloth. DO NOT use cleaning solvents.

Precautions

- Make sure the correct terminal lugs are connected to the correct terminals (i.e. positive on positive). Reversing connections could damage the PowerPulse unit.
- Any solvents that may be harmful to plastic should not be used on or near the unit.

- Secure ALL PowerPulse wires and verify they are a safe distance from moving parts before starting the vehicle.

WARNING: Because PowerPulse uses a minimal amount of the battery's energy in its conditioning process, external recharging may be required to replace the drain caused by internal discharge. If used continuously on a stored vehicle, PowerPulse could eventually drain the power within the battery over time. If this occurs, the battery can still be recharged or jumped easily and quickly. Operating the vehicle or recharging the battery on a regular basis can extend the run-down time.

The pulsating dc current produced by this product may interfere with the correct operation of some electronic devices when the unit is placed near the antenna. In order to insure no interference, the circuit box should be placed away from the antenna.

For More Information

For more information on installing and using PowerPulse or our other battery maintenance products, see your local [PulseTech dealer](#). Or contact PulseTech at **1-800-580-7554** or PPC@pulsetech.net.

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