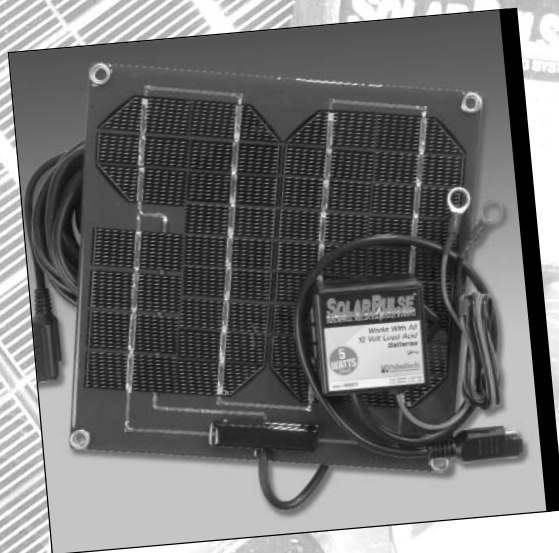


INSTALLATION MANUAL

SOLARPULSE™

INDUSTRIAL SOLAR CHARGING SYSTEM



**For Models
SP-2 & SP-5**

PulseTech®
Products Corporation

► Congratulations, you've just purchased one of the most effective methods available for keeping your 12-volt lead-acid batteries charged — the SolarPulse Industrial Solar Charging System.

Now you can charge, clean and even extend the life of your 12-volt lead-acid batteries with this one unique, solar-powered system. Besides charging your battery, it also provides a constant electronic dc pulse that removes sulfates on the battery plates and returns them to the electrolyte. By simply cleaning the plates, this system extends battery life, maintains peak battery efficiency, increases charge acceptance so batteries recharge faster and last longer.

SolarPulse is ideal for all 12-volt lead-acid batteries on vehicles and equipment in isolated situations where electrical power is not available.

This system will save you time, money and effort by reducing battery-related downtime, maintenance and replacement.

Installing SolarPulse is easy, just follow the simple instructions to the right.

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

I. Mounting The Circuit Box

NOTE: The SolarPulse models can be used with the circuit box mounted or unmounted on your vehicles or equipment because it comes with a quick-disconnect. If you leave it unmounted, MAKE SURE to separate the quick-disconnect on the wires BEFORE using the vehicle. Then reconnect the wires after storing your vehicle again.

To mount the circuit box, use the following steps. Mount the box close to the battery so that the lugs can reach the battery terminals. DO NOT attach it to the battery itself. MAKE SURE the box is situated in a location where it is protected & will not accidentally be disturbed by mechanics, etc.

The circuit box can be mounted in one of two ways:

1st Method: For a permanent installation, use two round head screws (not included) to attach the circuit box to the side of the engine wall or battery compartment or in another area away from moving engine parts.

2nd Method: Use an industrial adhesive by applying it to the back of the circuit box & then gluing the box to the side of the engine wall near the battery.

Once the circuit box has been mounted, use plastic cable ties (not included) to secure the SolarPulse wires to a cable or other secure area near the battery. This will keep the wires from tangling with moving engine parts.

Continued inside.

II. Connecting The Lugs

The lugs are designed for permanent or semi-permanent installations. **IMPORTANT:** The positive (+) SolarPulse wire (red) must be connected to the positive (+) battery terminal and the negative (—) SolarPulse wire (black) to the negative (—) battery terminal in order for SolarPulse to work.

1. Slip the round metal lug at the end of the positive (red) SolarPulse wire onto the bolt securing the battery clamp to the positive terminal until it sits next to the nut tightening the clamp. Slip a star washer (not included) onto the bolt and next to the lug.
2. Screw a hex nut (not included) onto the bolt and tighten it until it secures the lug and washer between it and the clamp nut. When SolarPulse is active (receiving sunlight) this will allow the unit to send a pulsating dc current through the terminal and into the battery to prevent the buildup of sulfates on the lead plates.
3. Repeat steps 1 - 2 for the negative lug.

Two 12-Volt Batteries In Series (5-Watt ONLY)

We recommend you use one 5-Watt SolarPulse per 12-volt battery for the best results, it can be used on two 12-volt batteries connected in parallel. For the parallel battery installation, just follow Steps 1 and 2 above and connect the positive lug or clamp to the positive terminal on the first battery. In Step 3, connect the SolarPulse negative lug to the negative ter-

minal on Battery 2.

SolarPulse has an LED on top of the circuit box. The LED will light up when the wires are attached to the battery terminals and the solar panel receives sunlight. If the LED does not light it may be due to one of the following reasons:

- The SolarPulse has been installed incorrectly (reversed polarity or a short).
- There is a bad connection.
- The battery has a short.
- Low light (dusk and dawn).

III. Mounting The Solar Panel

Mount the solar panel where it will have direct access to the sun. It can be mounted on the vehicle or equipment either horizontally or vertically.

The solar panel can be mounted in one of the following ways:

- Heavy-duty dual-lock
- Double-sided tape
- Hot glue or other adhesives.

IV. Basic Care and Cleaning

The SolarPulse system is completely weatherproof so moisture will not damage it. **DO NOT** use cleaning solvents on the circuit box.

5-Year Limited Warranty

What Does This Warranty Cover? This warranty covers any defects in workmanship or materials in the circuit board in the SolarPulse product under normal use and service.

How Long Does The Coverage Last? This warranty runs for five (5) years from the date of purchase.

What Will PulseTech Do? PulseTech will, at its option, replace or repair any defective circuit board with a new or rebuilt circuit board at no charge.

What Does This Warranty Not Cover? This warranty does not cover any parts other than the circuit board. In addition, PulseTech will not be responsible under this warranty if PulseTech determines that (1) upon examination that the circuit board failure was (A) caused by misuse, neglect, accident, alteration, or abnormal condition of operating or handling (including the failure to install the product in accordance with PulseTech's instructions and observe the warnings on the product and the instruction manual), or other conditions beyond the control of PulseTech or (B) damaged in transit to PulseTech, or (2) the owner is not the original purchaser that purchased the product through an authorized PulseTech dealer or distributor. **IN NO EVENT SHALL PULSETECH BE LIABLE FOR ANY DIRECT, SPECIAL, INDIRECT, CONSEQUENTIAL, INCIDENTAL, PUNITIVE OR EXEMPLARY DAMAGES, EXPENSES, LOST SAVINGS OR LOST PROFITS OR ANY OTHER DAMAGES OF ANY KIND FROM ANY BREACH OF THIS WARRANTY OR OTHERWISE.** Some states, provinces or countries do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation may not apply to you.

How To Get Service? Send the product postage prepaid with proof of purchase (sales receipt) within the warranty period to the authorized reseller where the product was purchased or contact PulseTech directly by calling 1-800-580-7554.

How Does State, Province or Country Law Apply? This warranty gives you specific legal rights, and you may also have other rights which vary from state to state, province to province or country to country.

THIS WARRANTY IS THE SOLE AND EXCLUSIVE REMEDY AND IS IN LIEU OF ALL OTHER WARRANTIES EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

SolarPulse™ Precautions

- **DO NOT** hold positive and negative lugs at the same time while the unit is active. It may cause a slight electric shock.
- Any solvents that may be harmful to plastic should not be used on or near the unit.
- Secure ALL SolarPulse wires and verify they are a safe distance from moving parts before starting the vehicle.

Warning

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.