

10-Year Limited Warranty

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

How Long Does The Coverage Last? This warranty runs for ten (10) years from the date of purchase.

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

What Does This Warranty Not Cover? This warranty does not cover any parts other than the solar panel or circuit board. In addition, PulseTech will not be responsible under this warranty if PulseTech determines that (1) upon examination that the solar panel or 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.

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.



The World Leader in Battery Maintenance Technology

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INSTALLATION MANUAL

Solargizer®

Battery Maintenance System



Congratulations, you've just purchased one of the most effective products available for ensuring battery performance. The **Solargizer and Receptacle Solargizer Battery Maintenance Systems** aren't battery chargers — they are *better*.

Each system uses our revolutionary *ReNew-IT Pulse Technology* to prevent the main cause of battery problems and failure: sulfation buildup on your battery plates. By conditioning the plates, these proven products help prevent dead batteries, extend battery life dramatically & maintain peak battery efficiency. They also increase charge acceptance so batteries recharge faster & with better quality.

Installing Solargizer is very easy. Just follow the simple instructions inside. Once installed, they work automatically to ensure peak battery performance & constant reliability.



Mount The Circuit Box

- 1 Mount the circuit box near the battery, but DO NOT attach it to the battery itself. Make sure it 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 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.

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

Connect Lugs To Battery Terminals

IMPORTANT: The positive (+) Solargizer wire (red) must be connected to the positive (+) battery terminal & the negative (—) Solargizer wire (black) to the negative (—) battery terminal in order for Solargizer to work.

Industrial 12-Volt Solargizer:

Single 6- or 12-volt batteries —

- 1 Slip the round metal lug at the end of the positive (red) Solargizer 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 & next to the lug.

- 3 Screw a hex nut onto the bolt & tighten it until it secures the lug & washer between it & the clamp nut. This will allow Solargizer to send a pulsating dc current through the terminal & into the battery which will eliminate the buildup of sulfates on the lead plates. (see Fig. 1.)

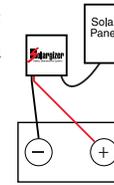


Fig. 1

- 4 Repeat steps 1 - 3 for the negative wire.

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 & the negative wire to the negative terminal on Battery 2 (see Fig. 2).

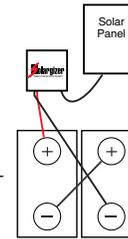


Fig. 2

Batteries In Parallel—

For 6-volt batteries install one (1) Industrial 12-Volt Solargizer on each set of two (2) batteries (see instructions above). For 12-volt batteries install one (1) 12-Volt Solargizer on each battery.

24-Volt & 36-Volt Solargizers:

For 6- or 12-volt batteries connected in series to equal 24 volts, use the 24-Volt Solargizer. For 36 volts use the 36-Volt Solargizer.

To install, Follow steps 1 through 2 under the Industrial 12-Volt Solargizer section. On step 3 connect the positive wire to the positive terminal on Battery 1 & the negative to the negative terminal on the last battery in the set (see Fig. 2 for an example

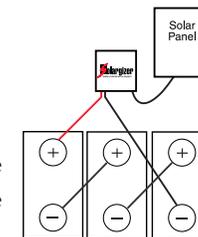


Fig. 3

of how a 24-Volt Solargizer is installed on two (2) 12 volt batteries and Fig. 3 for a 36-volt Solargizer on three (3) 12-volt batteries).

Mount The Solar Panel

- 1** Before proceeding, peel off the protective plastic sheet covering the panel and discard.
- 2** Mount the panel where it will have direct access to sunlight. (Note: Make sure it is mounted on a flat surface and DO NOT bend or flex the panel.) The solar panel can be mounted in one of the following ways:
 - *1st Method:* For a permanent installation, use four flat head screws to mount the solar panel to a flat surface on your vehicle or equipment.
 - *2nd Method:* Attach the solar panel by using two pieces of double-sided tape as follows:
 - Clean the surface where you plan on mounting the solar panel to remove all dirt, oil, etc.
 - Peel off the backing from the double-sided tape and stick both pieces to the back of the panel lengthwise along the edges. Note: If mounting panel inside your windshield, stick the tape on the front of the panel on the black section where the wire connects and along the opposite end of the panel. **DO NOT mount the tape on top of the blue solar cells or the silver strip.** (Note: Some windshields are designed to block ultra violet light which will reduce the effectiveness of the solar panel, so we recommend that you install the panel on the outside of your car.)
 - Peel off the backing from the opposite side of the tape and press the panel firmly against the vehicle surface or windshield.

- *3rd Method:* Mount the panel on the outside of the windshield by using a set of suction cups (Part No. 735X834) available from your PulseTech Dealer.
 - *4th Method:* The panel can also be mounted using a variety of industrial strength adhesives that can be purchased at your local auto parts or hardware store.
- 3** Once the solar panel has been mounted use a plastic cable tie to secure the wire to a cable or other stable area near the battery. This will keep it from tangling with moving engine parts or from accidentally being disturbed by a mechanic.

Splicing The Solar Panel Wire (Optional)

If you wish to remove any excess wiring or lengthen the wiring between the solar panel and circuit box once they are mounted, follow these steps. Note: DO NOT connect the circuit box to the battery until *after* the splicing is completed. Also, the splicing can take place only between the solar panel and circuit box and NOT between the circuit box and battery.

- 1** Pull the two connected wires apart and use a pair of wire cutters to cut one wire at a time to avoid causing a short. Remove the desired amount of wire.
- 2** Strip both cut wire ends approximately 3/8".
- 3** Take one end of the positive (+) wire (red) connected to the solar panel and insert it into the male end connector exposing only bare wire. Take the end of the positive wire connected to the circuit box and do the same with the other male end. Note: A simple wire nut may also be used. A good connection is critical to proper operation.
- 4** Hand tighten both male ends into the barrel.
- 5** Repeat the process with both negative (—) wires (black).

Note: If you wish to *extend* the length the solar panel wires, it can be spliced with up to 10-feet of 22-gauge wire.

LED

Each Solargizer unit 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 unit is activated (the panel is exposed to sunlight or the ac adapter on the Receptacle is plugged into an outlet). Once the unit is installed, if the LED does not light it may be due to one of the following reasons:

1. You do not have enough sunlight to activate the circuit.
2. The Solargizer has been installed incorrectly (reversed polarity or a short).
3. There is a bad connection.
4. The battery has a short.

Receptacle Solargizer Models

The 12-, 24-, and 36-Volt Receptacle Solargizer models include both a solar panel and a specially-designed ac adapter that can be plugged into an electrical outlet to power the circuit boxes.

- 1** Install both these models using the same instructions listed previously for circuit box and/or solar panel. When mounting the circuit box, make sure the box is installed upright so the the receptacle (hole) on the bottom of the box is pointing down. This will keep water, grease, dirt, etc. from collecting in the hole.
- 2** When the vehicle or equipment is stored, insert the tip of the adapter connector into the small receptacle (hole) on the bottom of the circuit box.
- 3** Plug the adapter into a 110-volt (or 220-volt if that is the

model you purchased) ac electrical outlet. The adapter will now power the Receptacle Solargizer unit 24-hours a day as long as electricity is supplied by the outlet.

Basic Care and Cleaning

The Solargizer system is completely weatherproof so moisture will not damage it. If the solar panel gets dusty or dirty, simply clean it with mild soap and water. DO NOT use cleaning solvents on the circuit box or the solar panel.

Precautions

- DO NOT hold positive and negative lugs at the same time while the solar panel is exposed to sunlight. It may cause a slight electric shock. Be sure to keep the panel out of sunlight during installation.
- Any solvents that may be harmful to plastic should not be used on or near the unit.
- Secure ALL Solargizer wires and verify they are a safe distance from moving parts before starting the vehicle.

Call For More Information

For more information on installing and using Solargizer or our other PulseTech battery maintenance products, contact your local PulseTech dealer. For the name of the dealer nearest you call us at **1-800-580-7554**.

Or visit our Web site at **www.pulsetech.net**.