



Installation Manual

As of 8/21/00

The Pulse Recovery System (PRS) is a patented, modular system designed to desulfate multiple 6-volt and 12-volt lead-acid batteries at the same time. Each station works with two batteries, and you can keep adding stations as needed (limit of ten total stations). This unique system is not a charger, but it can be used in parallel with large charging stations.

The PRS is perfect for battery shop and other service operations responsible for servicing vehicles and equipment. It's also ideal for refreshing new batteries that have been sitting in storage too long and, in some cases, recovering lead-acid batteries thought to be dead and useless.

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.

Preparation for Service & Operation

The patented Pulse Recovery System® is modular and consists of two types of units: A main or Power Base unit and optional Add-On Modules. Each unit will pulse and condition up to two lead-acid batteries at a time. The Power Base will work on it's own, but in order to add the Add-On Modules a Power Base unit must be used since it includes the main System Power switch that supplies power to all units.

Installing & Operating Power Base Unit

- Inspect the Power Base for visible damage which might have occurred during delivery.
- Plug the unit into an electrical outlet (110-volt or 220-volt depending on unit). Note, if the existing 220-volt Plug on the PRS does not work with your particular configuration, cut it off and replace it with a plug that will work for your needs.)
- Insert the set of red positive (+) and black negative (-) Cables into Station Receptacles at bottom of the unit. (To remove Cables, press in the Release Button marked "Push", then pull out clamps.)
- Attach the red positive (+) PRS Cable to the red positive (+) battery post and the black negative (-) PRS Cable to the black negative battery post.
- Turn the main SYSTEM POWER switch to the ON position.
- Turn the STATION POWER switch to ON only on the stations connected to a battery. The green LED will light indicating power is on. (If the light does not come on, try replacing the fuse on the right side of the Power Base. Use ONLY a 10-amp glass fuse.)
- At this point the red LED light marked "PULSING" will light. If it does not, make sure the Clamps are all attached to

the battery posts correctly. (NOTE: If the light still does not light, this means the battery has a direct short and cannot be recovered at all.)

- Let the PRS unit pulse the battery for at least two hours. After two hours, test the battery. If the battery condition has not increased by 10%, the battery is not recoverable. If it has increased, keep pulsing until the plates are clean enough to accept a charge. NOTE: The amount of time it takes to effectively clean the battery plates will vary depending on age and/or condition of each battery. Some batteries may take as long as five days to clean. Also, not all batteries will be recoverable due to a variety of reasons including damaged plates, shorts, etc., even if they initially improved 10% after two hours.
- Once batteries are recovered, be sure to set the STATION POWER switch to OFF, then disconnect the Clamps from the battery.

Attaching Add-On Modules

Up to nine (9) Add-On Modules can be attached to a Power Base. Each PRS unit pulses up to two (2) batteries, so with ten units up to 20 batteries can be pulsed at the same time.

- Inspect each Add-On Module for any visible damage which might have occurred during product delivery.
- On the left of the Power Base and each Add-On Module is a Receptacle. On the right of each Add-On Module is a black Plug. To attach an Add-On Module to the Power Base remove the plastic protective cover over the Receptacle on the Power Base with a screw driver. Then simply push the Power Base and Add-On Module together until the Plug snaps into the Receptacle. Do the same thing when attaching additional Add-On Modules. Leave the protective cover over the Receptacle on the last Add-On Module.
- To secure two units together, screw one small black Plate on top of the units and one on the bottom with each of the four (4) screws.
- To use the Add-On Modules, follow the same operating instructions as the Power Base.

PRS-12

The PRS-12 is a Pulse Recovery System™ that comes already assembled with one (1) Power Base and five (5) Add-On Modules. If you ordered a PRS-12, simply follow the same operating instructions listed above.

Mounting PRS To Wall

- Locate the holes on the back of the Power Base and the last Add-On Module. Install two large screws securely into the wall (one each for the Power Base and the Add-On Module), leaving a 3/16" gap to the wall close to a 110-volt (or 220-volt) grounded electrical outlet in a well-ventilated area. Make sure the Power Base can be plugged into the outlet without an extension cord, but DO NOT plug the unit in at this time.
- Hang the PRS carefully from the screws.
- Plug the Power Base into the electrical outlet.
- Follow operating instructions.

Precautions

- Make sure the correct terminal attachments are connected to the correct terminals (i.e. positive on positive).
- DO NOT hold the positive and negative ends of the Cables at the same time while the unit is active. It can inflict an electric charge to the body.
- DO NOT hold the Clamps together while the unit is active.
- Some solvents will destroy the plastic surface.

WARNING: Live Voltage Present. To Prevent Electrical Shock -- Unplug from power before removing protective cover. Never use as power input. Avoid all contact with connector prongs. Intended for use with PRS Add-On Modules only. Failure to heed this warning may result in injury or death.

WARNING: To Avoid Risk of Electrical Shock or Fire -- For North America use UL Listed or CSA Certified Fuse. For all

Other Areas use Fuse Conforming to IEC127. Fuse Rating - 2 AMP / 250VAC.

For More Information

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

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