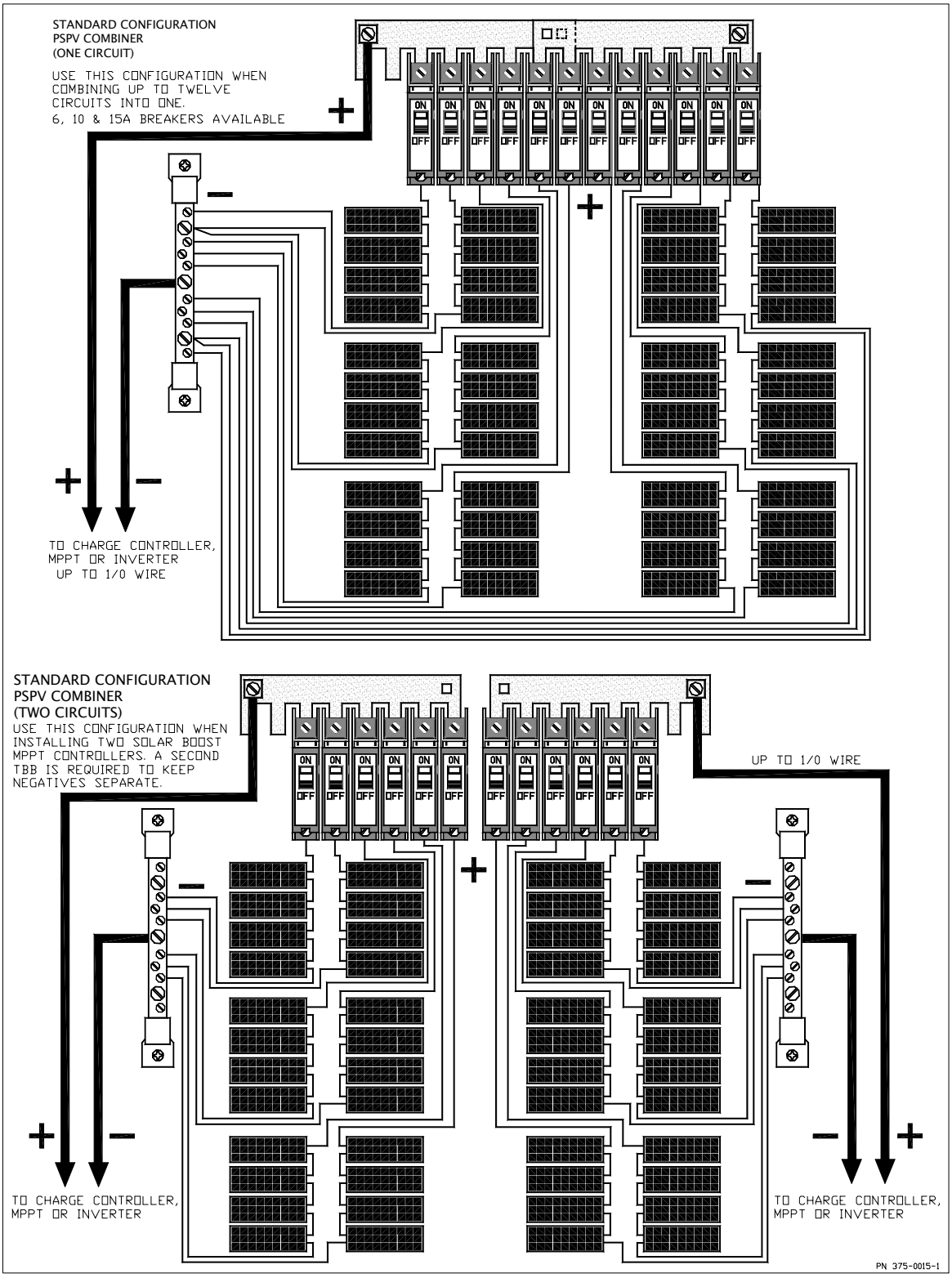
Installation instructions for PSPV Combiner

Document 900-0015-1

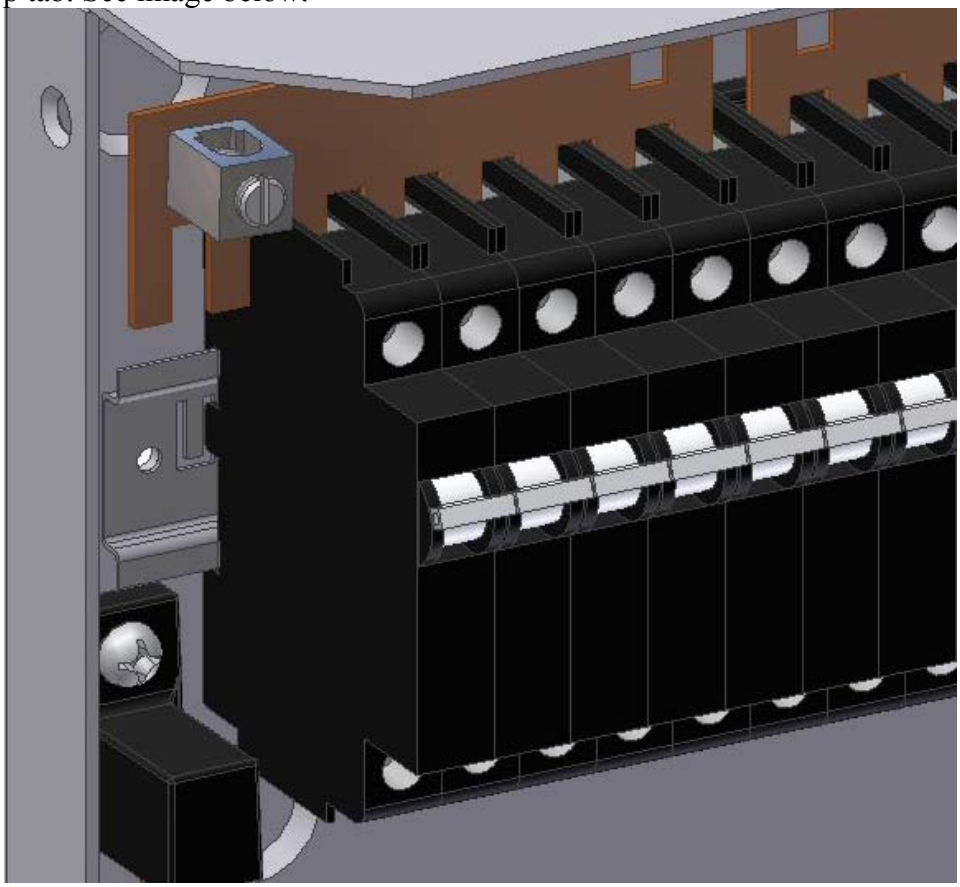
This wiring diagram is also located on the inside cover of the PSPV combiner.



The top diagram shows both Positive busbars connected together. This arrangement allows up to twelve strings to be combined into one. It is possible to bring wires off of each end of the busbars in order to further cut losses in the high current “combined” circuits. Two 1/0 lugs are provided in the busbar bag to facilitate this hook-up. Make sure that at least two fingers overlap in the middle of the busbars. This insures a good, low resistance connection for current to flow from one busbar to the other one.

The bottom diagram uses both busbars but arranged in two separate circuits. Two positive circuits are required when feeding two charge controllers such as the C40. Negatives can be combined in this system. Some controllers have shunts in the negative leg and must keep the PV negative circuits separate as well as the positive. Solar Boost controllers fall into this category. A second PV negative insulated busbar will be required for these installations. Use the OutBack TBB (terminal busbar) for the second PV negative as shown.

Circuit breakers available for the PSPV come in 6, 10 and 15 amps. These are rated for up to 125VDC. Place them over the din rail mount and push the yellow locking tab in. The breaker will still slide back and forth on the din rail. The first breaker should be slid all the way to the left up against the stop tab. See image below.



Using a thin screwdriver, bent the tab up at the end of the din rail. Install as many breakers as required and then bend up the tab on the far side of the last (right) breaker. This will secure the breakers from sliding off the din rail.

Ground Terminal: The ground terminal provided can be mounted either inside the chassis or outside. It can be moved from the right side to the left as well. There is a screw covering up another ground terminal mounting hole on the opposite side of the chassis. Make sure that the star washer is used if moving the ground terminal. The star washer bites through the powder coating to insure a good bond to the chassis.

Rain-proofing.: There is little to do to rainproof this enclosure. Make sure that all mounting holes are filled or sealed as well as the extra TBB mounting holes. A squirt of silicone sealant works just fine.

Pole Mounting: The mounting holes have been spaced to fit the largest muffler clamp available at your nearby auto parts store. This is an economical and available clamp for this type of installation.