

Equipment Installation Manual Light Dimmer		
P/N	SPTPWMLED-	LED or SPT EL Only!
P/N	SPTPWMLEDS-	LED or SPT EL Only! Switched
P/N	SPTPWMHD-	Heavy Duty
P/N	SPTPWMHDS-	Heavy Duty Switched
P/N	SPTPWMED-	Extreme Duty

## SPT Pulse-Width-Modulation Dimmer

Thank you for your purchase of Superior Panel Technology's Pulse-Width-Modulation Dimmer. These PWM dimmers are extremely easy to install and they come with an industry-leading 5-year warranty!

### Parts Supplied:

- 1 qty PWM dimmer unit with terminal screws (see above for the various part numbers)
- 3 qty 22-16 AWG red ring terminals
- 1 qty 16-14 AWG blue ring terminal
- 1 qty Short piece of black, red and yellow heat shrink tubing. Place red on power in wire, black on the ground wire and yellow for power out. (Note the "+", "-", "OUT" marking on the shells by the screws.
- 1 qty Knob
- 3 qty Lock washers

The SPT PWM dimmers can be used for 12-30 Volts.

**“WARNING” Use the “slim” ring terminals and the lock washers provided with the dimmer! To avoid shorts, DO NOT use any other ring terminals or washers!**

### Wiring / Installation

Find a good location that allows adequate clearance for PWM dimmer case. You can mount it at any angle. Drill a 1/8” inch hole where you want to center the potentiometer stem. Determine how you are going to position the dimmer and look at the orientation of the locking pin. Drill a 1/8” hole precisely 1/2” from the center of the first hole for this locking pin. Enlarge the potentiometer stem (first hole) to 5/16”. A Unibit works best for this. It may be necessary to file down or snip off some of the length of the locking tab depending on the thickness of your panel. We recommend centers of not less than 1 1/8” if you are installing multiple dimmers.

1. Install an appropriate breaker per model number:

P/N SPTPWMLED 2 Amp Wire recommendation 22 ga

P/N SPTPWMLEDS 2 Amp Wire recommendation 22 ga

*Note: The above two models will take up to 7 Amps, but it is highly unlikely that you will be drawing that many amps. When using the SPT EL lamps and the SPT Led Light Strips, only a 2 Amp breaker will be needed. If you are drawing close to 7 Amps, use the wire recommendation as shown for the HD and HDS dimmer models.*

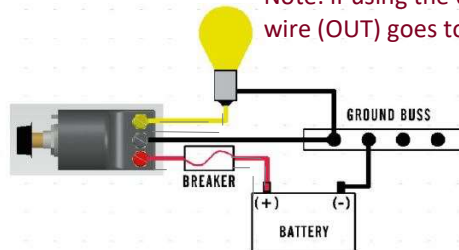
P/N SPTPWMHD 7 Amp Wire recommendation 18 ga

P/N SPTPWMHDS 7 Amp Wire recommendation 18 ga

P/N SPTPWMED 10 Amp Wire recommendation 16 ga

2. The shell cover has markings for "+, - and OUT". Install a wire of the appropriate gauge for DC power input (that is protected by appropriate breaker) to the Positive "+" screw terminal on the PWM dimmer.
3. Install a ground from a good grounding buss to the negative "-" screw terminal. As a rule it is best not to ground to the air frame as it could induce unwanted electrical noise. A smaller 22ga wire can be used for this connection as no current for the device being dimmed is carried through this ground wire.
4. Install a wire of the appropriate gauge from the "OUT" screw terminal to the light or other device to be controlled by the dimmer.

**Note: if using the dimmer for EL Glow Strips, the output wire (OUT) goes to the RED input wire on the inverter**



### 5 Year Limited Warranty

SPT will repair or replace, at its expense and at its option any PWM dimmer manufactured by SPT which in the normal use has proven to be defective in workmanship or material, provided that the customer returns the product prepaid to SPT along with proof of purchase of the product within 5 years and provides SPT with reasonable opportunity to verify the alleged defect by inspection. SPT will not be responsible for any asserted defect which has resulted from misuse, abuse or over stressing above published specifications. SPT will under no circumstances be liable for incidental or consequential damages resulting from the defective products. This warranty is SPT's sole warranty and sets forth the customer's exclusive remedy, with respect to defective products; all other warranties, express or implied, whether of merchantability, fitness for purpose, or otherwise, are expressly disclaimed by SPT.