



111 Walnut Street Naugatuck, CT 06770

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**TENTWARES : Portable 2000 watt rated dimmer, with GFCI and 15Amp fuse.**  
**1875 watts continuous use, 2000 watt peak at 125 volts, 15 amps**

**Proper use and wattage ratings:**

To insure long life and better return on your investment we have chosen 1875 watts maximum with a 15 amp protective fuse for the dimmer switch. A higher wattage rating is possible but detrimental to the life of your product. Please consider that replacing a fuse is simple and inexpensive (\$1.00) as compared to replacing the dimmer switch (\$100.0) or complete unit (\$300.00+). The Dimmer Switch with GFCI is built for portable, temporary usage. It is not rated for use in wet areas. Never install a larger fuse, this will void all warranties and may cause safety issues to personal and property.

**Factors to consider when calculating proper dimmer size:**

Quite often the reliability of supplied power in a temporary lighting project is unknown. Supplied power, voltage and current can have major swings up and down dependent upon the source and load. (What is available and what power is consumed by items plugged into it). This swing of voltage and current has a direct correlation as to what wattage the dimmer will see. When calculating your lighting power consumption and the size of the dimmer to be used, several factors must be considered.

- 1) The type and wattage of bulbs, incandescent, halogen (*Caution, LED's must use a special type of dimmer*)
  - 2) Length of wire or extension cords from power source to application.
    - a) Longer distance = higher voltage drop = larger wire needed.
  - 3) Wire gauge (AWG) Size of wire / extension cords. (AWG = American wire gauge)
    - a) Use 12 AWG for 15-20 amp for 50 feet or under,  
Use 10 AWG for 15 -20 amp, 50 feet or longer distance.
    - b) The smaller the wire AWG (gauge) the less current capacity, thus the less power (wattage) allowed before your cords or wires will be overloaded. Overloaded wires/ cords or dimmers can cause cable overheating and the possibility of damage, short circuits or even a fire.
  - 4) Power source voltage and current. The size of fuse or breaker feeding the source.
  - 5) What other applications will be plugged into the same power source? DJ, HVAC, PA system, etc.
- For a more accurate calculation we suggest using a power measurement device such as the "P3 Kill-A-Watt" meter. They are very easy to use and can be purchased at major chain hardware stores for \$25 - \$30.

**2000 Watt Dimmer Specifications:**

- Dimmer switch: Lutron dimmer rated for 2000 peak wattage, 1875 watts continuous use.
- Ground fault interrupt: Leviton blank face GFCI rated for 20 amp maximum capacity
- Entry cable: NEMA 5-15P molded plug, 12/3 SJT insulated wire
- Exit cable: NEMA 5-15R molded receptacle, 12/3 SJT insulated wire
- Fuse: 15 amp, 250VAC –Fast acting ceramic. Fuse holder: ¼ turn spring loaded
- Wattage rating with 15 amp fuse: 120 VAC at 15 amps = 1875W
- Usage: Incandescent or Halogen light dimming (not for use with LED lighting, or motor speed )



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**POWER USAGE FOR A GIVEN FUSE SIZE AND LINE VOLTAGE**

Fuse size Amp	Line Volts	Watts	Fuse size Amp	Line Volts	Watts	Fuse size Amp	Line Volts	Watts
10	90	900	15	90	1350	16	90	1440
10	100	1000	15	100	1500	16	100	1600
10	110	1100	15	110	1650	16	110	1760
10	115	1150	15	115	1725	16	115	1840
10	120	1200	15	120	1800	16	120	1920
10	125	1250	15	125	1875	16	125	2000
10	130	1300	15	130	1950	16	130	2080
17	90	1530	18	90	1620	20	90	1800
17	100	1700	18	100	1800	20	100	2000
17	110	1870	18	110	1980	20	110	2200
17	115	1955	18	115	2070	20	115	2300
17	120	2040	18	120	2160	20	120	2400
17	125	2125	18	125	2250	20	125	2500
17	130	2210	18	130	2340	20	130	2600

**Notes:**

Adding more items to a power source (outlet) adds more load and typically will draw the voltage down.

This will increase your current, which can exceed your fuse rating and blow the fuse.

Long lengths and / or undersized extension cords add to this problem.

**\*\***With a constant voltage adding more load (current draw) will increase the wattage used.

1) When the line voltage goes down the line current goes up.

2) When the line voltage goes up the line current goes down.

3) When the voltage is constant and the current use goes up, the wattage use goes up

4) When the voltage is constant and the current use goes down, the wattage use goes down

**Example:** 125 volts AC - constant

	Amps		Watts		Amps		Watts
Current goes up. (ie. More lights)	10	Wattage goes up	1250	Current goes down (ie. less lights)	20	Wattage goes down	2500
	15		1875		18		2250
	16		2000		16		2000
	18		2250		15		1875
	20		2500		10		1250